What about Companies Matters to Share Investors?

An Exploratory Study of Australian Institutional and Individual Investor Preferences

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Abstract

Purpose: The purpose of this exploratory research is to identify the attributes of companies that are important to investor preference. This research addresses the fact that the extant literature on investor preference, which mostly consists of studying correlations between the stock ownership of institutional investors and company attributes determined from reported financial accounts and stock data, may not be capturing the attributes that are important to investors.

Research approach: This study employed personal interviews using the technique of Repertory Grid Analysis (RGA) because the method provided a good means for identifying constructs important to investors personally and for exploring similarities and differences between participants based on their personal definitions of those constructs.

Findings: This study found six attributes of companies to be important to investor preference none of which had been identified previously in the extant literature on investor preference. This study also found that with one exception (i.e. the perception that a company is in a good sector) the attributes important to institutional investors are different from the attributes important to individual investors. The conclusion based on the data is that individual investors mostly have a preference for different kinds of companies to those preferred by institutional investors.

Value: This research provides a method contribution to literature by employing a technique from clinical psychology previously used in research on consumer behaviour to identify constructs important to investor preference that before now have not been captured by the methodologies in extant literature. Practically; it provides companies listed on stock exchanges with a better understanding of what attributes matter to which investors and should therefore be considered when making strategic decisions and decisions about how investor communications are managed.

Keywords: investor preference; behavioural decision theory; repertory grid analysis; institutional investors; individual investors; investment context.

Statement of Original Authorship

The work contained in this thesis has not been previously submitted to meet requirements for an award at Queensland University of Technology or any other higher education institution. To the best of my knowledge and belief, the thesis contains no material published or written by another person except where due reference is made.

Signature: QUT Verified Signature

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Lag Return	Cumulative share price performance of shares over a preceding time period for example six months.
Book to Market Ratio (BMR)	Measured by dividing the value of a company's shares shareholders' equity according to financial statements by the market value of the company's shares outstanding.
Dividend Yield (DY)	The cash return paid as a dividend per share to shareholders measured as a percentage of the share price.
Leverage Ratio	A company's total shareholders' equity divided by total liabilities according to the financial accounts of the study period (typically year-end).
Current Ratio	A company's current assets (typically cash, receivables and liquid investments) divided by the current liabilities (obligations falling due in the next twelve months).
Return on Assets (ROA)	Measured by dividing the net income of the company for the year by the book value of the assets of the company at year-end.
Return on Equity (ROE)	Measured by dividing the net income of the company for the year by the book value of the shareholders' equity in the company at year-end.
S&P Rankings	The ranking of companies in terms of their earnings and dividends by rating agency Standard Poors.
Analyst Coverage	The number of analysts who provide financial analysis on a particular stock.
Depository Receipts	The certificates that are traded like a stock in the United States that represent some quantity of the shares of a company domiciled abroad.
Index Membership	A company whose stock is included in an exchange index.

Chapter One: Introduction

Capital markets are competitive markets. In competition companies listed on stock markets can benefit from having a higher valuation per dollar of income than their peers and by having a share price that outperforms their peers. A high valuation enables companies to make acquisitions or fund growth by issuing new shares to third parties on terms that are less dilutive and therefore cheaper for their existing shareholders. This is because the higher the value of the shares the fewer new shares have to be issued. A better performing share price can give advantages in competition with peers for recruiting and keeping key executive personal because most companies now pay a portion of their executive compensation in some form of deferred equity (Australian Shareholders Association, 2015). This deferred equity delivers greater value to executives when the share price is rising. The share linked component of compensation also provides an incentive for executives to manage the company in a way that leads to good share price performance and a higher valuation relative to peers going forward.

In economics, preference is assumed to be the key determinant of behaviour (Schunk & Winter, 2009) but investor behaviour based on preferences has generally been assumed to have little or no bearing on valuation or share price performance. This is because according to orthodox finance theory, (e.g. Capital Asset Pricing Model (CAPM)), share prices are unbiased predictors of underlying value and this is maintained through the workings of arbitrage (Shleifer, 1986). The assumption that share prices are determined by underlying value and not materially impacted by investor preferences may in part explain why no research has been reported that examines the effects of the stated preferences of investors for particular attributes on the market valuations of companies perceived to be strong on those attributes. The effects may not have been studied because they are assumed, based on orthodox finance theory, to not be significant.

However research using proportional share ownership data to study the preferences of different categories of investors have found that stocks with attributes preferred by institutional investors outperformed stocks that were not preferred when the total money under institutional investor management increased between 1983 and 1997 (Bennett, Sias and Starks, 2003). Institutional investors is the name given to the category of investors who are the professional employees of financial institutions (i.e. investment banks, insurance companies, incorporated investment vehicles and fund management companies) who analyse companies and make investment decisions concerning the sale and purchase of shares for those institutions and their clients. Also, the revealed preferences of individual investors (i.e. people directly investing in stocks) for the shares of companies owning products with strong positive consumer brand perceptions has been posited as the likely cause for the valuations of those stocks being higher than companies with poorer brand perceptions resulting in institutional investors perceiving them as unattractive investments (Frieder and Subrahmanyam, 2005).

Therefore, notwithstanding the fact that no research has yet been reported showing positive relationships between investor preferences generally and the market valuation or share price performance of companies, the evidence from the above mentioned empirical studies on such relationships in market participant sub-categories means companies could benefit from knowing what attributes are important to investors. This knowledge could be useful for companies when considering strategic decisions and when communicating about themselves with investors. For example, acquiring or building strength in the attributes preferred by investors and communicating more about those attributes to investors could increase investor preference for their shares with consequent effects on share demand and supply.

1.0 Research Context

1.0.1 Behavioural Decision Theory

According to Behavioural Decision Theory (BDT) preferences are labile and can change depending on how a choice is framed (Levin, Schneider, & Gaeth, 1998) and on changes in choice set composition, this latter being called "context effects" in BDT (Chernev, 2005). People it is theorised may have dispositions towards some attributes that underlie preferences which they may or may not be aware of (Simonson, 2008a; Kivetz, Netzer & Schrift, 2008). These dispositions may exist prior to the formation of preferences, they may be enduring (i.e. relatively stable), and persist in the face of changes to choice set compositions (i.e. be "context-independent"). Revealed preferences, it is argued, result from some combination of these context-independent preferences from dispositions and context-dependent (constructed) preferences (Kivetz, Netzer & Schrift, 2008). For example, an enduring preference for environmentally friendly products combining with the consideration of current product prices due to discounting by a retailer resulting in the choice by a consumer of which dishwashing liquid is purchased. In complex tasks the significance of attributes that have low context effect sensitivity may be less obvious because they are masked by attributes that are sensitive to context effects (Simonson, 2008a). This last proposition of Simonson's (2008a) is relevant when considering the extant literature on investor preferences.

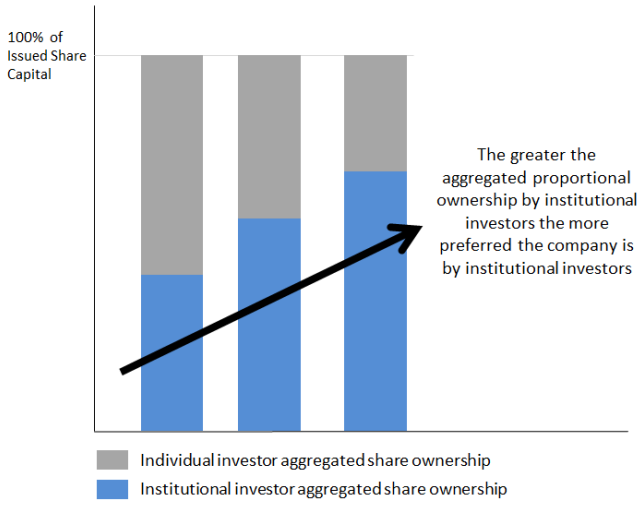
Contrary to BDT, the traditional view in economics and finance has been that preferences are not context effect sensitive, but exogenous and constant (Kapteyn, Wansbeek & Buyze, 1980). Yet, traditional finance theory assumes all investors are rational and risk averse and form investment preferences for stocks based on their expectations about the financial returns and risks from alternative investments and trade into and out of stocks as their expectations change (e.g. the Capital Asset Pricing Model (CAPM), see Lintner (1965), Mossin (1966), Sharpe (1964)). This has ramifications for most of the research on investor preference which consists of correlational studies using aggregated institutional share ownership data as the dependent variable. As I will show in the

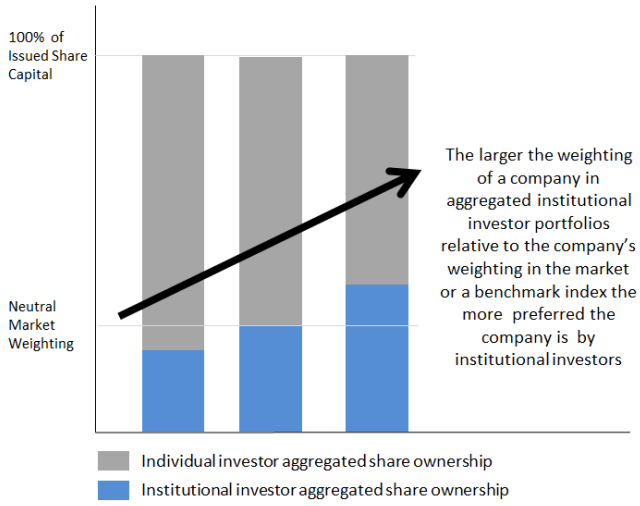
literature review the effects of changing share price related value and risk considerations on institutional investor decisions to buy, hold or sell stock cannot be disentangled statistically or practically from the effects of preferences for other firm/stock attributes.

1.0.2 Correlational Studies of Investor Preference

Many correlational studies have been done and they constitute the bulk of the literature on investor preferences. Most studies use aggregated stock ownership data and operationalise preference by comparing the proportional ownership of institutional investors with other investors (i.e. individual investors) or comparing the value of aggregated institutional ownership against the proportional value of the stocks in the total market or in a bench mark index (i.e. relative weightings) (e.g. Bennett, Sias and Starks, 2003; Brands, Gallagher and Looi, 2006; Covrig, Lau and Ng, 2006; Dahlquist and Robertsson, 2001; Falkenstein, 1996; Kang and Stultz, 1997; Pinnuck, 2004). Implicit in these methodologies is the assumption that since all companies are totally consumed (i.e. all shares are owned) investor preference is always relative. This logic assumes all companies are liked more by institutional investors or liked more by individual investors or may be liked equally by both. These assumptions are illustrated pictorially in Figure 1 below.

Figure 1. Typical Operationalisations of Preference in Correlational Studies





Source: Prepared for inclusion in this thesis

1.0.3 Constraints of Correlational Studies

A constraining consequence of using either method for the operationalisation of preference is that we cannot distinguish among constructs found to correlate with institutional investor preference those that are important to investor decision making from those that are unimportant. Also we cannot be sure if when an attribute records a strong positive correlation with proportionally high institutional share ownership that attribute is truly liked by institutional investors or just disliked less by institutional investors than by individual investors. Likewise, a strong negative correlation could mean that institutional investors like the attribute but not to the same extent as individual investors, possibly because companies that have the attribute are considered too expensive to invest in by price conscious institutional investors. We also cannot distinguish between attributes of companies that are liked equally by both individual investors and institutional investors and attributes that are disliked equally or important to both categories from unimportant to both. Attributes that are important to investors may not show up as statistically or practically significant in the correlational study research which operationalises preference using measures based on stock ownership data.

Besides the above constraints another problem I will show in the literature review is how there often are plausible alternative explanations for many of the effects found in the correlational studies and how selecting variables for study mostly from company accounting data and stock data based on normative models from finance has constrained the usefulness of this research in contributing to our understanding of investor preference.

1.0.4 Investor Meetings research

The high importance attached by institutional investors to investor meetings means the research on the purpose of these meetings and the information communicated is valuable when considering what attributes matter to investors. Investor meetings are the face-to-face private meetings held by institutional investors with the senior executives of listed companies. All the studies of investor meetings have found them to be the most important source of investment information for institutional investors (e.g. Bence, Hapeshi and Hussey, 1995; Gaved, 1997; Barker, 1998; Holland and Doran, 1998; Hendry, Sanderson, Barker and Roberts, 2006; Marston, 2008; Barker, Hendry, Roberts and Sanderson, 2012). It has also been well established that the informational content of the meetings is not perceived by participants as price sensitive (Holland, 1998; Hendry et al., 2006; Barker et al., 2012). Based on the results of the research on investor meetings it seems that despite the breadth of the correlational studies none of them have identified any attributes that are among the most important to institutional investors. This conclusion can be drawn because there are no constructs resulting from the research that are common to both the correlational studies results and the investor meetings data.

The investor meetings studies were mostly concerned with exploring the purpose of meetings by studying the conduct and content of the meetings typically by looking at the kinds of questions that are asked. A list of attributes based on that research is provided in the literature review. The list includes mostly high level constructs and some variables that may contribute to investor evaluations of those or other constructs. The main constraint on this literature as a means for identifying

constructs important to investor preference is that the questions asked by institutional investors in meetings may contribute to their evaluative judgement of constructs that are not surfaced themselves by the research. We also do not know from the meetings literature why the variables are important beyond that many seem to be valuable because they are used in the preparation of formal financial models about companies. Whether the variables are core constructs of institutional investor preference we cannot be sure from this literature although the high value placed by institutional investors on those meetings seems to suggest some at least may be important.

1.0.5 Research on Individual Investor Decision Making

There have been studies also conducted into individual investor decision-making. They will be critically evaluated in the literature review because they provide more variables that may be important to investors. There is little in common between the constructs identified in this research and either the results of the correlational studies or the investor meetings research. It is possible that the attributes most important to institutional investors are somehow related to the attributes most important to individual investors but individuals have different methods of evaluating attributes because of information asymmetry. What is not clear is what those related attributes are or what might be the nature of relationships because precise definitions of constructs are lacking in the literature on individual investor decision making. For example, management quality has been identified as an attribute important to individual investor decision making but what the construct management quality means has not been defined in the literature.

1.0.6 Differences Between Institutional Investors and Individual Investors

The models of traditional finance theory, like the aforementioned CAPM, do not distinguish between individual investors and institutional investors. However, contrary to how investors are supposed by CAPM theory to hold diversified portfolios and be active traders, researchers have found that the typical individual investor is not diversified, and not a stock trader, rarely selling (Aspara and

Tikkannen, 2010: Warnyerd, 2001). The fact that institutional investors find investor meetings their most valuable source of information yet individual investors are not aggrieved by their lack of access to such meetings suggests there are differences between individual investors and institutional investors beyond their stock trading behaviour.

One way institutional investors and individual investors could be different is in terms of their relative expertise as investors. Institutional investors can be seen as expert consumers based on Spence and Bucks' (1997) definition of an expert as a person who has acquired domain-specific knowledge through experience and training. The typical individual investor would lack the experience and training of an institutional investor so can be seen as a non-expert consumer. From this perspective, individual investors as non-expert consumers would be expected to differ from institutional investors in both the content of knowledge about objects of consumption (in this case stocks) and the way their knowledge is organised (Alba and Hutchison, 1987). Concerning the organisation of knowledge, we know from research on consumer behaviour that consumers have been found to use category structures to differentiate between products (Srivastava, Alpert and Shocker, 1984). The basic level of categorisation is believed to be determined mainly by concrete perceptual attributes (Murphy and Smith, 1982). Deeper levels of categorization tend to be more abstract enabling finer discriminations between objects. The shift from the basic level to "deep structure" categories has been shown to occur with increases in expertise (cf. Alba and Hutchinson, 1987; Adelson, 1984; Schoenfeld and Herrman, 1982). Expert consumers have therefore a more complicated category structure which also differs from non-experts by the nature of the attributes used for evaluation because of the tendency towards a higher level of abstraction (Alba and Hutchinson, 1987).

This research explores investment decision-making to identify the attributes that are important to investors when they make their decisions and explores whether the same attributes that are important to individual investors are also important to institutional investors. This thesis research is based on the assumption that to arrive at a good understanding of what is important to investors

about the firms/stocks they prefer as investments an approach is needed that is well suited to exploring complicated category structures and multiple levels of abstraction.

1.1 Methodology

The research approach of this thesis is Repertory Grid Analysis (RGA) which is a technique that bridges the gap between qualitative and quantitative methods of analysis (Green, Wind and Jain, 1973). The technique, developed by Kelly (1955), identifies the repertoire of constructs an individual has in their personal construct system. Individual goals, evaluative judgements and future expectations are believed to result from personal "construing" (Kelly, 1955) which is believed to occur as people continually interpret and reinterpret their environment. Construing is the process of finding differences and similarities between things in order to give meaning to them (Eden and Jones, 1984). According to Kelly's personal construct theory investor behaviour should always be guided by each investor's personal construct system. Using the repertory grid analysis (RGA) technique means seeing companies as preference objects through the eyes of investors.

Although originally developed for use in clinical psychology RGA has been used to identify personal constructs of consumers and shown to be a reliable instrument for exploring the cognitive complexity of consumer behaviour (Zinkhan and Barunsberger, 2004). This makes the technique a good method for exploring investor behaviour since researchers have found that using RGA provides a greater depth of construct elicitation than can be achieved from using direct semi-structured interview questioning on its own (Lemke , Keith, and Szwejczewski, 2003) and is a powerful tool for probing the interviewees understanding of complex topics by pushing them beyond jargon and encouraging the articulation of complex issues (Goffin, K., Lemke, F., and Szwejczewski, M., 2006). The technique has not been used before to explore investor behaviour.

1.2 Contribution of the Research

This study makes a method contribution to literature by employing a well-established technique from clinical psychology that has previously been used successfully to study consumer behaviour but never used to explore investor preference. Using this methodology constructs were found to be important to investor preference that have not been identified before in the extant literature. The practical contributions of this thesis relate to corporate strategic decision-making regarding the constructs that are important to institutional investors and how these decisions should be interpreted by companies as to their significance concerning the different constructs that are important to individual investors.

Chapter Two: Literature Review

In this chapter I review the literature relevant for this study of investor preference. I begin by defining preference and then review the literature on preference formation before critically evaluating the empirical literature on investor preference.

2.0 Defining Preference

The study of preference began in economics and psychology with research into comparative judgement and individual decision making early last century (Thurstone, 1927). In economics preference is assumed to be the key determinant of behaviour (Schunk & Winter, 2009). Because finance and the social sciences share the same academic roots in economics, preference is defined similarly as an individual's ordering of alternatives based on their perceived utility (Kapteyn, 1985). Consequently the attributes considered important by investors will be the traits evaluated by them when making investment decisions. Preference is typically studied in two forms. First, by indirect measurement based on inferences made from data on the outcomes of actions involving choices between alternatives, which is often called "revealed preference" (RP) (Train, 2003). This is the typical approach in economics and finance where researchers infer preferences from aggregated data such as sales and market share statistics or from individual data based on experiments involving choices or an individual's willingness to pay.

The second form, "stated preference," (SP) sees preference as the indicated liking of one object, condition or stimulus more than alternatives. Stated preference is typically viewed as a latent construct analogous to attitude that is directly measurable using scale ratings (Kroes and Sheldon, 1988). In the economics discipline SP methods have generally been regarded with some scepticism because of concern that they may not correspond to actual preferences (Wardman, 1988), because people do not necessarily do what they say (Kroes and Sheldon, 1988).In the literature it is often

assumed that revealed preferences and stated preferences are the same despite the fact they are inferred and measured differently (Tversky, Sattath, & Slovic, 1988).

2.1 Preference Formation

The classical view in economics is that preferences are exogenous and constant (Kapteyn, Wansbeek, & Buyze, 1980) and that when deciding between alternatives individuals always prefer the option with the highest subjective value (i.e. greater utility) (Von Neumann & Morgenstern, 2007). For each option the subjective value was assumed to be some combination of the elementary components of the option, the option's characteristics, each of which has value (utility) of its own (Zajonc & Markus, 1982). An individual derives utility from the characteristics of the option rather than the option itself (Kapteyn, 1977). Individuals were assumed to have known subjective values for all the characteristics of each option, meaning preferences were assumed to have completeness. These known subjective values were assumed to differ between people but remain constant for each individual, meaning preferences were assumed to be stable (Warren, McGraw, & Van Boven, 2010). Assuming preference completeness and preference stability provided substantial simplification for the modelling of human economic behaviour which is probably why these assumptions survived so long in economics despite what Kapteyn et al., describe as their "utter lack of plausibility" (Kapteyn, Wansbeek and Buyze, 1980, p.123).

The notion of preference completeness requires that individuals hold subjective values for all option attributes and attach a definite range of pay-offs for each option's possible outcome. As an alternative to assuming preference completeness Simon (1955) advanced the theory of "bounded rationality" which posited that because individuals have limited knowledge and ability they simplify complex choice tasks by retrieving only the subjective quality evaluations of a subset of characteristics, the attributes they deem relevant to the choice task, and employ decision processes to arrive at a satisficing rather than utility maximising choice (Kivetz, Netzer, & Schrift, 2008).

Strong support for the theory of bounded rationality has come from experiments involving search tasks. Individual search behaviour is attractive for experimental studies because complicated optimization problems can be masked by what seem to participants as relatively simple task structures. The literature based on experimental studies overall suggests that individual search behaviour is better described by relatively simple heuristics that may derive from satisficing rather than from employing optimal stopping rules to achieve utility maximisation (Schunk & Winter, 2009).

Before Von Neumann and Morgenstern (1944) showed how utility could be mathematically expressed in terms of probabilities there was no accepted mathematical framework for testing the descriptive validity of the axiom of preference stability (McFadden, 1999). Their seminal work on choice under uncertainty is credited with providing the framework and encouraging scholars to challenge the accepted orthodoxy of preference stability using laboratory experimentation (Warren, et al., 2010). Subsequent research found that, instead of being constant, individual preferences were labile and can change depending on how the experimenter manipulates the frame (framing effects) and, or the context (context effects) of the choice task.

2.1.1 Framing Effects

Framing effects are a perceptual phenomenon (Fagley, 1993) where decision makers "respond differently to different but objectively equivalent descriptions of the same problem"(Kühberger, 1998, p.150). There are several different types of framing manipulations that are used though the most widely tested have been *valence framing effects.* These are where tasks are framed in either a positive or negative light (McElroy & Seta, 2003). According to Levin, Schneider, & Gaeth (1998) there are three types of valence framing effect experiments:

1) *Risky choice framing* where options with differing risk levels are all framed either negatively or positively and effects on preference are assessed by comparing the frequency of choices in each framing condition;

2) *Attribute framing* where an object attribute is framed in a positive or negative way and the effect on the evaluation of the object is measured by comparing the ratings for the attractiveness of the object in each framing condition (Levin et al., 2003);
3) *Goal framing* where the results of a choice or behaviour are framed in positive or negative terms and the rate of choosing that behaviour is compared for both framing conditions (Levin et al., 2003).

2.1.2 Context Effects

Context effects are defined as the relational properties of options under consideration that change depending on the composition of a choice set (Chernev, 2005). Changes in choice set composition have been found to significantly influence preferences (Müller, Vogt, & Kroll, 2012). Typically, research on context effects involves manipulating the composition of a choice set by adding options to the set which have attributes that are different in one or more ways from the previous set. This is done to test the resulting effects on participant preferences. The three most researched context effects are:

1) *Compromise effect,* which is where the share of an option is enhanced when it is the intermediate alternative in a choice set (e.g. Tversky & Simonson, 1993);
2) *Attraction effect,* which is where by adding to a choice set an option that is asymmetrically dominant the share of the dominant alternative is enhanced (e.g. Huber, Payne, & Pluto, 1982);
3) *Similarity or substitution effect* which is where an added option hurts similar alternatives more than dissimilar ones (e.g. Tversky, 1972).

The conclusion drawn from the study of faming effects and context effects, called Behavioural Decision Theory (BDT), was that preferences are not stable but rather constructed by individuals at the time of choice.

2.2 Preference Construction and Consumer Behaviour

The concept of preference construction and the insights gained from the BDT experiments have been adapted and applied by scholars studying consumer decision making and incorporated into their models. For example, Bettman, Luce and Payne (1998), argue that consumer behaviour is best understood within a framework where consumer preferences are assumed to be "inherently constructive." Their Choice Goals Framework is a set of propositions they believe describe the process of consumer decision making. The framework accommodates incidences such as the preference reversals and preference changes identified by BDT research by seeing them as the result of interactions between a consumer's individual goals, their abilities and environmental factors.

According to Bettman et al., consumers make choices to accomplish goals and the four most important goals are: (i) maximising the accuracy of choices; (ii) minimizing cognitive effort when choosing; (ii) minimising the experience of negative emotion when choosing and (iv) maximising the ease of justifying choices. They believe how consumers weight their goals depends on the characteristics of the choice task. The goals and choice task characteristics influence the selectivity of individual attention and how environmental factors are interpreted when making choices. Making choices is seen as essentially a problem solving endeavour where individuals draw from their repertoire of different strategies or create a strategy on the spot. Strategies can vary from person to person depending on their experience and training. Since consumers have different degrees of knowledge and skill the advantages and disadvantages of different strategies differ between people and vary between choice environments but each individual will select the strategy that best meets their goals.

In the "constructive world" of Bettman et al. the frame effects observed in BDT experiments occur when consumers change the weightings of their goals. The context effects are due to environmental factors such as the availability, range and pricing of consumer products.

2.3 Preference Stability

Itamar Simonson, (Simonson, 2008a) has argued that much of the evidence for construction from BDT experimentation could be explained by how data has been gathered and that people tend to avoid absolute value judgements in favour of accessible relative comparisons so the conclusions of some experiments should not be extended much beyond their particular and sometimes highly contrived experimental context. Furthermore, the tendency of people to focus on what is in front of them and what is chronologically accessible give the local context and salient features of the task a significant advantage over dormant inherent preferences during experimentation.

> "In decision environments where contextual reference points are salient, inherent preferences are likely to be overshadowed by the option set, task, frame and the tendency to gravitate to relative assessments." (Simonson, 2008a, p.163)

Simonson defined "inherent preferences" as: "relatively stable preference components or dispositions that are not determined by the context, task or frame... and assumed to reside within a person over an extended period, even before testing" (Simonson, 2008a, p.162).

Kivetz, Netzer and Schrift (2008) have re-interpreted Simonson's notion of "inherent preferences" as the dispositions that underlie preferences which decision-makers may or may not be conscious of. These dispositions they have suggested may exist prior to the formation of a preference and were context-independent, relatively persistent and likely to interact with preference construction to create the observed, revealed preference. Viewed from their perspective, revealed consumer preferences were the result of some combination of context-independent preferences "rolled up" from dispositions and context-dependent (constructed) preferences. While relatively stable the context-independent preferences would not be static but could evolve over time due, for example, to changes in other preference dynamics such as goals, learning, experience or satiation. They suggested the two types of preferences might also interact and influence each other.

Kivetz et al. agreed with Simonson that BDT researchers have become experts at explaining the role of the task and context in preference construction but have overlooked the role and evolution of dispositions. They asserted that there is a need for research on the antecedents of context-independent preferences. By which they probably meant BDT style experimental research. Because, in the marketing discipline, there has been extensive study concerning the antecedents of relatively stable, enduring and, to the degree that research designs make it possible, relatively context-independent preferences in the form of survey research on brands and branding.

Kivetz et al. agreed with Simonson that BDT researchers have become experts at explaining the role of the task and context in preference construction but overlooked the role and evolution of dispositions. They asserted that there is a need for research on the antecedents of context-independent preferences.

2.4 Context Effects and Research on Investor Preference

The concept that changes in the attributes of a choice set (i.e. context effect) can have a significant impact on choices is relevant to the review of the literature on investor preference in Section Two because the majority of that literature has involved the study of choices (revealed preferences) based on aggregated investor stock ownership data. The stock market is a very large choice set in which preference attributes are always changing and some, such as the stock market valuations of companies which fluctuate with share prices, can change very rapidly.

The extant empirical literature on investor preference was written prior to BDT and predicated on the pre-BDT conceptualization of individual preferences as always having completeness and stability. Ideas from BDT in general and context effects in particular are yet to make a strong appearance in the finance literature. Kapteyn et al., (1980) observed over thirty years ago that many economists took the pragmatic view that the study of preference formation should be left to other social sciences.

Within the literature on investor preference the potential for choice set attribute changes (i.e. context effects) related to share price changes to influence share price related valuation considerations and thereby investor decisions to buy or sell shares has not been a consideration. Yet, as will be discussed in the next section, these effects cannot be easily disentangled statistically or practically from the effects of preferences for stock/company or management attributes. The impact of context effects on 1) how investors perceive these attributes and 2) their investment choices (revealed preferences) as share prices change has consequences for the interpretation of research results and potentially skews the results in a way that may mask the importance of low context-effect sensitive attributes (Simonson, 2008a). This may in part explain why despite the large extant literature on investor preference there are presently no models of investor preference that can explain investor behaviour like why institutional investors value meetings with company management so highly.

2.5 Empirical Research on Investor Preference

In this section I undertake a critical evaluation of the empirical literature on investor preference. There are three bodies of relevant literature, as follows:

1) Correlational studies of the relationships between financial and non-financial company/stock variables and investor preference;
2) Qualitative research on the conduct and content of meetings held between company executives and institutional investors;
3) Research on individual investor preferences.

2.5.1 Correlational Studies of Investor Preference

Correlational studies of institutional investor preference became possible when, starting in the late 1980s, researchers gained access to new sources of data on institutional investor shareholdings. There are no references in this literature to any earlier exploratory studies of investor decision making.

Instead independent variables for study appear to have been selected based on normative models from finance and in particular the suitability of the variable as a proxy for testing a theorised phenomenon (e.g. newspaper coverage as a proxy for informational asymmetry, (Falkenstein, 1996)).

Researchers typically identified the traits of companies that institutional investors preferred by regressing company traits against a dependent variable determined by aggregating institutional investor stock ownership data. The general assumption has been that the more owned a company is by institutional investors the more preferred are that company's traits by institutional investors. Across this literature a statistically significant and practically significant positive correlation between a studied attribute and the aggregated institutional stock ownership based dependent variable has always been interpreted as showing that institutional investors for that attribute had a greater preference than individual investors at the time of the study.

Because the higher the proportion of institutional ownership means the lower the proportion of individual share ownership it has been inferred from a negative correlation with aggregated institutional share ownership that individual investors had a greater preference for companies with the attribute than institutional investors. This, for example, was the method used by Frieder and Subrahmanyam (2005) who investigated the effects of company brand perceptions on individual investor preferences using negative correlations with the weighting of institutional investor holdings as a contrary indicator of individual investor stock preferences.

One very significant constraint of this methodology is that because it assumes all attributes are preferred by some investors, and measures only relative preference a researcher cannot draw conclusions about what attributes are important and what attributes are unimportant to investors in general. For example, an attribute important to individual investors and institutional investors may be proportionally owned such that it is not identifiable based on high or low levels of institutional stock ownership in data. Also, when an attribute records a strong positive correlation with institutional share ownership that attribute may not be liked by institutional investors just disliked less than by

individual investors. Likewise, a strong negative correlation could mean that individual investors dislike an attribute less than institutional investors not that they like the attribute more. The consequence is that this literature cannot be relied on for the identification of the attributes that matter to investors. We can only conclude that at the time of a particular study a particular attribute was more likely to be shared between companies owned by institutional investors than between companies owned by individual investors.

I will also examine how compounding the above constraint of this literature is the difficulty of disentangling statistically or practically the effects of preferences for firm stock attributes from the effects of institutional investor decisions to buy or sell stocks based on valuation considerations. An attribute might be liked by institutional investors but companies with that attribute might be trading on such high valuations because of investing by less valuation conscious individual investors that institutional investor stock ownership is proportionately less. This question cannot be answered from the data used in the correlational studies so we cannot determine how much their regression models are capturing context effects from price related value change considerations and how much is capturing enduring preferences for firm or stock attributes. The methodology employed in this thesis should capture context effect sensitive and enduring attributes if they are important to investor preference.

2.5.1.1 How Investor Preference Has Been Defined and Measured

Data service providers such as Morningstar and CDA Investment Technologies began consolidating institutional investor stock ownership data from 13F U.S. Securities and Exchange Commission (SEC) filings in the 1980s. Using these new sources of data research into institutional investor behaviour began in the 1990s with studies into how the flow of funds from these investors effected share prices (e.g. Chan & Lakonishok, 1995; Lakonishok, Shleifer, & Vishny, 1992) and whether a tendency among institutions to evaluate their choices in part based on what other institutions were doing (i.e. herding) may explain share price trending (e.g. Banerjee, 1992; Scharfstein & Stein, 1990). Access to these

sources of data also enabled research to commence on institutional investor preferences by making the basic assumption that the most owned companies were the most preferred.

One approach has been to aggregate the stock ownership data on companies to measure the proportion of each company's total stock outstanding held by institutional investors. It has been assumed that the greater the proportion of institutional ownership in a company the more preferred that company by institutions (e.g. Bennett, Sias and Starks, 2003; Brands, Gallagher and Looi, 2006; Covrig, Lau and Ng, 2006; Dahlquist and Robertsson, 2001; Falkenstein, 1996; Kang and Stultz, 1997; Pinnuck, 2004). For example, Falkenstein (1996) defined institutional investor preference as the percentage of institutional ownership in a specific stock, own_i, as the following:

(1)
$$own_i = \sum_{m=1}^{M} \frac{\text{shares owned of stock } i \text{ by fund } m \text{ at time } t_m}{\text{shares outstanding of stock } i \text{ at time } t_m}$$

where t_m represents the date corresponding to the company data on fund m's holding of stock i, and M is the total number of funds holding the stock.

Alternatively, researchers have used the data to compare the size of holdings of companies in institutional investor portfolios (called the stock weightings) with the average holding they have for all companies across their fund (e.g. Del Guercio, 1996) or with the relative weighting of the companies in major market indices (e.g. Aggawal, Klapper and Wysocki, 2005). For example, when Del Guercio (1996) studied the preference of institutional investors for high quality stock (HQ) she calculated the weight for each manager i of investor type T as follows:

(2) $$W_{\mathrm{HQ}}^{Ti} = X_{\mathrm{HQ}}^{Ti} / X^{Ti}$$

where the total dollars invested by manager i in high quality stock (HQ) is X_{HQ}^{Ti} and X^{i} is the total dollars invested by manager i in all stocks. She then averaged across all managers within each type T to calculate overall institutional investor preference for high quality stock.

Irrespective of which of the two methods is used the constraint is that all attributes are assumed to be preferred by some investors because all companies' shares are fully consumed (i.e. 100% owned). A company in which institutional investors are underweight (i.e. have aggregated holdings below the weighting of the stock within an index) is a company in which individual investors are over weighted and vice versa. Preference is therefore defined only in relative terms so attributes of stocks that may be important and preferred by both institutional investors and individual investors cannot be distinguished from attributes that are unimportant to both categories and for which they both have an equal negative preference (aversion). This means attributes that are important to the preference of investors in general may not be captured in studies that adopt either of these approaches. Also, as I will show later in this section, it is plausible that because of the stock trading behaviour of institutional investors as price related valuation perceptions change their choices related to those market valuation considerations cannot be easily disentangled statistically or practically from the effects of preferences for other stock/company attributes. Again this means attributes that are important to investor preference may not be captured in studies that adopt either of these two methods. The potential practical ramifications are that company executives may waste effort and money communicating about variables identified as preferred by investors in this literature though in fact those constructs are not important to investor preference.

Table 1

Financial Attributes Studied in Literature on Institutional Investor Preference

Variables	Falkenstein (1996)	Del Guercio (1996)	Kang and Stultz (1997)	Dahlquist and Robertsson (2001)	Gompers and Metrick (2001)	Bennett, et al. (2003)	Pinnuck (2004)	Aggawal, et al. (2005)
Firm Size	(+)	(+)	(+)	(+)	(+)	(+)	(+)	(+)
Liquidity		(+)			(+)	(+)	(+)	(+)
Share Price	(+)				(+)	(+)		
Price Volatility	(+)	NPS	NSS	NSS	(+)	(+)	(-)	
Price Performance	NPS			NSS	(-)	(+)	(-)	NSS
Dividend Yield		NPS		(-)	(-)	(-)		
Book-to-Market Ratio or BE/ME	NPS	(-)	(-)	(-)	(+)		NPS	(-)
S&P Ratings		(+)						
Current Ratio			NSS	(+)				
Leverage Ratio			(-)	(-)				(-)
Return on Equity				NSS				NPS
Return on Assets			(+)					

The table shows the results of regression analyses of institutional investor preference (measured typically by share ownership) on company and stock characteristics. The sign on the statistically significant coefficients are shown in parenthesis. NSS denotes that the results were found to be not statistically significant. NPS denotes that resulting coefficients were found to not have practical significance.

Source: Developed from the literature in this review.

Table 2

Non-Financial Attributes Studied in Literature on Institutional Investor Preference

Literature	Falkenstein (1996)	Del Guercio (1996)	Kang and Stultz (1997)	Dahlquist and Robertsson (2001)	Gompers and Metrick (2001)	Bennett, Sias and Starks (2003)	Pinnuck 2004)	Frieder and Subrahmanyam (2005)	Aggawal, Klapper and Wysocki (2005)	Covrig, Lau and Ng (2006)	Brands, Gallagher and Looi (2006)
# News stories	✓V										
Years Since Listing	✓V	✓PQ			✓PQ	✓PQ	✓				
Exports/ Foreign Sales			✓V	✓V						✓V	
Analyst Coverage									✓PQ	✓V	✓PQ
S&P Rankings		✓PQ									
Index Membership		✓PQ			✓PQ					✓V	
Foreign Listing / Depository Receipts			✓	✓V					✓PQ	✓V	
Accounting Quality									✓PQ		
Brand Perceptions											
Share of Mind								✓			
Esteem								✓			
Image power								✓			

In the table ✓V denotes an independent variable studied as a proxy for the construct "firm visibility"; ✓PQ denotes an independent variable studied as a proxy for the construct "prudential quality".

Source: Prepared for inclusion in this paper

2.5.1.2 Classifying the Attributes Studied as Independent Variables

The early correlational studies of institutional investor preferences were undertaken by Eric Falkenstein (1996) and Diane Del Guercio (1996). The attributes they identified and their conceptualisation of potentially relevant constructs have been influential in the subsequent empirical literature (Table 1 and Table 2). Like Falkenstein (1996) and Del Guercio (1996) most subsequent studies of the relationships between company/share attributes and institutional investor preference have included financial and non-financial independent variables.

The attributes that have been studied as independent variables are shown in Table 1 (financial) and Table 2 (non-financial) on the preceding two pages. In the early studies the focus tended to be on financial attributes as researchers sought explanations for specific market phenomena, for example research by Gompers and Metrics (2001) on the relative outperformance of large company stock compared to smaller company shares in the 1980s and 1990s. In the later studies the emphasis shifted to explaining why certain companies were preferred over others for non-financial reasons. This change of emphasis may in part be due to the call in 2000 by the respected finance scholar Meir Statman (2000) for more research on the non-financial characteristics of companies in the portfolios of institutional investors. His call coincided with increased academic interest in the performance of funds that shared non-financial goals such as socially responsible investing (SRI).

The financial attributes in Table 1 can be classified into four categories based on how the attributes are related to each other and how they have been conceptualised in constructs in the literature. These categories are: investment threshold; share price change; share valuation and financial quality.

The non-financial attributes (Table 2) have been employed as proxies for two widely studied constructs: firm visibility and company prudential quality. In Table 2 I denote where and how the non-financial attributes have been employed as proxies for constructs by using super-text (✓^{V} denotes an

independent variable studied as a proxy for the construct "firm visibility"; $\checkmark^{PQ}$ denotes an independent variable studied as a proxy for the construct "prudential quality").

2.5.1.3 Investment Threshold Attributes

Company size and share liquidity (stock turnover) are the two most studied attributes in research on the preferences of institutional investors. Falkenstein (1996) found that institutional investors have a preference for large companies. Del Guercio (1996) found that institutional investors have a preference for companies with liquid stocks. Both findings have been widely replicated.

With the exception of funds managed specifically to invest in small companies the preference of institutional investors for large companies has been found to apply irrespective of the type of institution being investigated (Bennett, Sias, & Starks, 2003). It has also been found to be as true for institutions investing outside of the United States as within. Examples include: Dahlquist and Robertsson (2001) who found institutional investors in Swedish companies prefered large firms; Pinnuck (2004) and Brands, Gallagher, and Looi (2006) found Australian institutions did likewise and Aggarwal, Klapper, and Wysocki (2005) showed it was applicable for institutional investors in emerging markets in general.

Like Falkenstein's findings regarding the preference of institutions for large companies, Del Guercio's findings concerning the preference for liquid stocks has been widely replicated (e.g. Bennett, Sias, & Starks, 2003; Brands, Gallagher, & Looi, 2006). Covrig, Lau, & Ng (2006) examined domestic and foreign fund manager preferences in 11 developed countries and found both exhibited preferences for stocks with high daily turnover. Aggarwal et al., (2005) showed it was also true of institutional investors in emerging markets.

Falkenstein (1996) suggested the small size of companies may discourage investing by mutual funds because the ownership of a larger proportion of the outstanding stock implies a premium must be paid to enter or exit a position. This is because of the potential for unfavourable price movements due

to an institution buying or selling in volume. The link between liquidity and investment returns has been extensively studied (Marcato & Ward, 2007). The magnitude of the bid-ask spread has been found to decrease as stock liquidity improves (Brennan & Subrahmanyam, 1995) and when the market for a stock lacks depth. The result can be that prices move away from the investor as they execute their transactions (Kyle, 1985). The effect means investments in small companies and illiquid stocks have higher transaction costs than investments in large companies with liquid stocks. Exiting a large position in a small company can also become particularly difficult during a sharp market decline when stock liquidity can fall sharply (Bhide, 1993).

Another reason institutional investors may have an aversion to small companies with illiquid stocks could be because they offer lower potential returns on the expenditure of management resources. The analysis and performance tracking of a small company will require at least the same resources as following a large company, probably more because of reduced external support since company size is well known as a determinant of broker analyst coverage (Palmon, Sudit, & Yezegel, 2008). By contrast the potential contribution to overall fund performance is likely to be smaller from owning small companies because the amount invested would be less if the fund manager desired to remain below the % ownership thresholds that trigger special regulatory disclosure requirements or if an institution's internal risk management policies set maximum ownership thresholds which according to anecdotal evidence many do.

Firm size and stock liquidity are closely correlated and as Kerry Cooper, Groth, and Avera (1985) observed it is difficult to disentangle them conceptually or statistically. Both are likely to be threshold considerations for institutional investors meaning that once a firm passes some minimum size or some minimum level of liquidity the variables cease to have an influence on fund manager preferences (Hessel and Norman, 1992). Evidence supporting this hypothesis has been found by Pinnuck (2004). His study of Australian institutional investors included an examination comparing the characteristics of only those companies owned by fund managers using 95 monthly observations based on

institutional ownership data. Using an ordinary least squares regression he found the average coefficient when company size (Log of size) was regressed against fund manager ownership was too small to have practical significance and only 3 out of 95 months were statistically significant at the 5% level. This suggests that unlike when comparing companies that are owned by institutions with companies that are not owned when only a sample of owned companies is studied there is no significant relationship between size and preference.

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Marketing research on consumer decision strategies provides a useful perspective on the role company size and stock liquidity plausibly play in institutional investor decision making. Scholars have found that consumers frequently employ a combination of strategies to arrive at a purchase decision starting with an initial phase in which some alternatives are eliminated when they fail to meet a minimum cut-off value for a salient attribute. Then, in the second phase, analysis takes place in more detail such as by weighting other salient attributes (Bettman, Luce & Payne, 1998). It is plausible that

institutional investors may similarly eliminate stocks as investment options based on company size and liquidity before deciding on specific choices by comparing companies on other attributes. According to this interpretation company size and stock liquidity may be qualifying criteria that, analogous to Herzberg's "hygiene factors", do not in themselves when they are present create satisfaction for institutional investors but whose absence creates dissatisfaction (Herzberg, 1966).

2.5.1.4 Share Price Change Attributes

The relationships between share price change and institutional investor preferences have been widely researched as Table 1 shows. Attributes based on share price change have been used to determine measures for the financial risk of stocks (price volatility/beta) and to measure stock returns to investors prior to changes in institutional ownership. The findings in the research concerning attributes based on share price change have been contradictory.

Some studies have found that institutional investors tilt their portfolios towards stocks with lower short term price variance (Del Guercio, 1996; Frieder and Subrahmanyam, 2005) and low past returns (Gompers and Metric, 2001). Other researchers have found institutions have a preference for high volatility stocks (Falkenstein, 1996) and high past returns (Bennett, Sias and Starks, 2003). The research that has found correlations between short term price variance and institutional investor preference (negative or positive) have been cross sectional studies and scholars have suggested that the correlation is probably explainable by the relative variance of the stocks preferred by institutions (large and liquid) compared with those not preferred (small and illiquid) at the time of the study (Bennett, Sias and Starks, 2003). Longitudinal studies have typically found the correlations to be not practically significant (e.g. Kang and Stulz, 1997). One plausible explanation why the cross sectional studies have contradictory findings and the longitudinal studies have found the correlations not practically significant could simply be that investor preferences concerning stock volatility changes over time. Institutional investors may for example de-risk their portfolios by selling volatile stocks

during periods when they have concerns about the economy or in the face of external macro-economic shocks.

The explanation that the correlations for studied attributes is probably explainable by the studied attributes being characteristics of stocks preferred by institutions for other reasons such as because they are large and liquid stocks has also been given for the observed correlations between recent period price returns and institutional investor preference. For example, Falkenstein (1996) found considerable stability in holdings between 1991 and 1992 and concluded that there was insufficient evidence to make any inferences from correlations between ownership and price returns from his data. He concluded that the correlation between the flow of institutional funds and share price prior year returns was explainable based on their strong aversion to companies in the low-priced stocks category which had produced lower stock returns than high-priced stocks during his study period.

The longitudinal study by Bennett, Sias and Starks (2003) suggests a phenomenon more complicated than the simple cyclicality of share price performance. Contrary to Gompers and Metric (2001) who found institutions were contrarian investors (i.e. preferred stocks with poor prior period share price performance) Bennett et al. found them to be extrapolative (trend following). They studied diferences in the idiosyncratic preferences of the same kinds of institutional investors researched by Gompers and Metric (2001) and used the same source of data (CDA Spectrum). Both studies were longitudinal (Gompers and Metric (2001): 1980-1996; Bennett et al. (2003): 1983-1997). Bennett et al. (2003) unlike Gompers and Metric (2001) found institutions were momentum investors which they measured using an independent variable determined from the cumulative share price performance of firms over the previous six months which they called **lag return**. Gompers and Metric had looked at the three month and nine month returns. Consistent with the findings of Gompers and Metric (2001), there was a negative relation between institutional ownership and lag return (significant at the $< .05$ level). Gompers and Metric had interpreted the negative relation between aggregate institutional ownership and momentum found in their study as evidence that institutions were not positive feedback traders

and did not prefer stocks with better recent returns. However, by additionally regressing the changes in ownership between quarters with lag return Bennett et al., produced results that suggested institutional investors move towards (away from) the stocks with share prices that have recently risen (declined). They believed the negative coefficient in the regression of aggregated ownership with lag return could be explained by firms that had recently become large (small) having higher (lower) levels of institutional ownership than firms that had been large (small) for some time. The phenomenon of institutional investors increasing their ownership in companies over time (many quarters) and thus contributing to the above average positive share price performance of those stocks they called a "demand shift".

2.5.1.5 Share Valuation Attributes

All share valuation attributes studied in the empirical literature are derived from metrics incorporating a share price interaction component. The equations used to calculate measures of share valuation vary between researchers but the underlying principles of the most studied attributes are common across the literature as follows:

Book to Market Ratio (BMR) is measured by dividing the value of a company's shareholders' equity according to the financial statements by the market value of the company's shares outstanding; a low ratio equates to a high share valuation.

Dividend Yield (DY) is the cash return paid as a dividend per share to shareholders measured as a percentage of the share price; a low yield equates to high share valuation.

The attributes Book to Market Ratio (BMR) and Dividend Yield (DY) have been widely studied as proxies for company valuation and for differentiating between value stock and glamour stock. Value stocks are typically defined as having high BMR and high DY while glamour stock are defined as stocks having the opposite characteristics (Del Guercio, 1996).

Studies have found that institutional investors have an aversion to owning stocks with high valuations based on BMR (i.e. low BMR) (e.g. Aggarwal, Klapper, and Wysocki, 2005; Dahlquist and Robertsson, 2001; Kang and Stulz, 1997) and DY (i.e. low DY) (e.g. Aggarwal, et al., 2005; Bennett, Sias and Starks, 2003; Dahlquist and Robertsson, 2001; Del Guercio, 1996; Gompers and Metrics, 2001). In all studies the magnitude of the correlation coefficients for BMR and DY has been very small in comparison to the main effects of company size and stock liquidity. In most studies only the regression results from pooling aggregated institutional ownership data over the study period have been reported. Using pooled data from several years of observations means the total sample size of observations is larger which can help achieve statistically significant regression results. However, data pooling may have the effect of masking the inherent volatility of the coefficients for share price sensitive attributes like BMR and DY.

2.5.1.6 Financial Quality Attributes

There is no single measure for company financial quality in corporate financial data so scholars have studied it indirectly using proxy variables, typically a slate of variables. As with the share valuation attributes the equations used to calculate measures of financial quality have varied within the literature but the underlying principles are common across studies as follows:

Leverage Ratio (LR) is a company's total shareholders' equity divided by total liabilities according to the financial accounts of the study period (typically year-end); a high leverage ratio implies reduced risk that a company will suffer financial distress so higher company financial quality;

Current Ratio (CR) is a company's current assets (typically cash, receivables and liquid investments) divided by the current liabilities (obligations falling due in the next twelve months); a high current ratio implies reduced risk of a company failing to meet short term payment requirements so higher company financial quality;

Return on Assets (ROA) is typically measured by dividing the net income of the company for the year by the book value of the assets of the company at year-end; a higher return on assets implies higher financial quality;

Return on Equity (ROE) is typically measured by dividing the net income of the company for the year by the book value of the shareholders' equity in the company at year-end; a high return on equity implies higher financial quality;

Institutional investors have been found to have an aversion to investing in companies with high leverage (i.e. low LR) (Aggarwal, Klapper and Wysocki, 2005; Dahlquist and Robertsson, 2001; Frieder and Subrahmanyam, 2005; Jain, 2007; Kang and Stulz, 1997) and companies that produce a low return on assets (Frieder and Subrahmanyam, 2005; Kang and Stulz, 1997). When investing abroad, institutions have been found to prefer the shares of companies with cash on the balance sheet (high CR) (Dahlquist and Robertsson, 2001) and companies that deliver a high return on equity (Covrig, Lau and Ng, 2006).

The inclusion of financial quality variables in regression models does not appear to make them much better at explaining the variance in institutional investor preferences. Overall the investor preference models have more explanatory power when preference is measured by company ownership data as existing or absent (i.e. owned shares versus un-owned shares) than explaining differences in relative preference for attributes (i.e. companies more liked versus companies less liked).

This point was highlighted by the Aggarwal, Klapper, and Wysocki (2005) study. They used institutional ownership as a dependent variable in one study. In this study they found that the total variance explained by their logit model which incorporated financial quality proxy variables along with company size, dividend yield and stock returns was approximately 40% (Pseudo-R^2 = 0.41). They conducted a second study which used the investment allocations of mutual funds in emerging market companies relative to each company's weighting in the Morgan Stanley Composite Index (MSCI) as a

dependent variable. This measure of preference based on comparative weights captures the differences in the degrees of preference for companies owned by institutions. When they conducted regressions for this relative preference measure against firm characteristics the proportion of variance explained by their model fell to just 5% ($R^2 = 0.05$). This suggests that financial attributes may explain a significant ammount of the variance of aggregate institutional investor preferences between companies in different classes (large companies versus small companies, liquid versus illiquid stocks) but they are poor explainers of why one owned company's shares are more prefered than its also owned peer's.

2.5.1.7 Introduction to Non-Financial Attributes

Non-financial attributes have been studied as proxies for two main higher level constructs these are "firm visibility" and "prudential quality". Proxy variables for firm visibility have included the number of news stories written about a company (# News Stories) and whether a company generates revenue from overseas sales (Exports/Foreign Sales). Proxy variables for prudential quality have included the earnings and dividend ranking of companies by Standard and Poors (S&P Rankings) and the assessed quality of a company's accounting policies (Accounting Quality).

Four attributes have been employed as proxy variables for both constructs these are: the number of years a company has been listed (Years Since Listing); the number of analysts who cover a stock (Analyst Coverage); whether the company stock is included in an index (Index Membership) and whether a company based outside the United States has shares or depository receipts listed on a US exchange (Foreigh Listing/ Depository Receipts). Having proxy variables in common when studying very different constructs plus the difficulty of distinguishing causes from effects means the research findings can often be reinterpreted to support alternative plausible explanations, as I will now show.

2.5.1.8 Firm Visibility Attributes

Falkenstein (1996) introduced the firm visibility construct to research on institutional investor preference when he used the term "visibility" in the abstract to his research article. Interestingly the word "visibility" did not appear once within the article itself though it was taken-up and attributed to him in subsequent literature (Kang and Stulz; 1997; Dahlquist and Robertsson, 2001; Covrig, Lau and Ng, 2006). Falkenstein's regression analyses included two variables (# News Stories and Years Since Listing) which he included to test his hypothesis that the investment decisions of institutional investors are influenced by the cost of information on particular stocks.

Falkenstein (1996) saw these two variables as proxies for visibility based on the assumption that when companies have been listed for a longer period of time or are more frequently covered in newspapers the aggregate information is higher which reduces the estimation uncertainty regarding the riskiness of their stock. He found a strong positive relationship between both proxy variables and institutional investor ownership of companies and concluded that "funds show a significant preference towards stocks that are discussed in newspapers, and also stocks that have been listed for a significant time period" (Falkenstein, 1996, p.128). However, Falkenstein's use of the log of news stories and the log of listed age to calculate his measures means his results should be more accurately interpreted as showing that mutual fund ownership is lower in companies that are only rarely in the news and companies that are only newly listed (Falkenstein, 1996).

There are plausible alternative explanations for the relationships that Falkenstein found. For example, large companies, those shown to be preferred by institutional investors, may be more frequently covered by journalists because their size means they are perceived to be of interest to a larger number of readers. Also, the companies that have a large number of institutional investors as shareholders may issue more press releases communicating positive events and other performance information to the media as a response to perceived pressure from institutional shareholders to maintain a high positive profile. Having institutions as shareholders has been found to create anxiety among senior executives to be seen and liked (Roberts, Sanderson, Barker and Hendry, 2006). Consequently, being

owned by institutional investors may increase press coverage rather than media attention lifting institutional ownership.

A plausible alternative explanation for the effect of listed age on institutional ownership could be that it is a statistical artefact linked to the flow of capital into funds and the nature of how fund managers turnover their stock holdings. Based on anecdotal evidence, when funds receive money they typically allocate it between companies in the market depending on their current portfolio weightings. Consequently it may take time for new listings to achieve a large institutional shareholding because, though they will probably receive a share of new money raised, the flow of other institutional money into their shares depends on the proceeds from institutional sales of other companies' stock. Based on this scenario it would take time for aggregate institutional ownership of new listings to increase and the rise would occur unrelated to the increased aggregate information of old companies versus new listings but due to company fundamentals.

In the abstract for his article Falkenstein described his findings concerning the information proxy variables as showing that mutual funds "have a significant preference towards stock with high visibility". The term visibility was not used in the article itself. After Falkenstein (1996) some scholars have applied the term and adapted his construct. For example, Kang and Stultz (1997) hypothesised that because investors invest in the securities they know (Merton, 1987) and since heavy Japanese exporters are presumed to be better known abroad than other Japanese companies, the extent to which a Japanese company exports may be a good proxy for the visibility of a company to institutional investors. They found that the ownership by foreign institutional investors of Japanese companies was monotonically increasing with the ratio of exports to sales. However, the impact of company size was much larger and after taking that also into account the ratio of exports to sales was uninformative except for small firms where foreign sales seemed to effect the level of ownership. This raises the question whether investor preferences for small Japanese exporting companies may have been due to their visibility or instead reflected some favourable disposition of investors towards them because

of the financial prospects of the Japanese export sector. Japanese exports exhibited strong growth in their study period from 1975 to 1990 (Hummels, Ishii, & Yi, 2001).

The same question applies to the findings of Dahlquist and Roberston (1997). They concluded based on pooled data for the period 1993-1997 that foreign institutional investors had a strong preference for Danish firms with a high proportion of revenue from exports. This may, as they suggest, support previous evidence that US mutual funds have a significant preference for stocks with high visibility (Falkenstein, 1996). However, it is also plausible that overseas based institutional investors saw better prospects for Danish companies that exported than for firms that depended on the relatively small Danish domestic market. For a local analogy consider whether the high levels of foreign ownership in Australian minerals exporting companies is more likely due to their visibility abroad because they export or because investors perceive that Australia has a comparative advantage in mineral resources just as Denmark is perceived to have a comparative advantage in the processed and unprocessed agricultural products that dominate their export sector.

The challenge of finding good variables to proxy for the construct of firm visibility might explain why export volumes (eg. Kang and Stultz, 1997; Dahlquist and Roberston, 2001) and foreign sales (Covrig, Lau, & Ng, 2006) have been included when studying the preferences of institutions investing abroad. Other independent variables used to supplement exports as a proxy also have potential problems particularly since the same or very similar variables have been proposed by scholars as proxies for the "prudential quality" construct and interpreted as impacting investor decisions due to effects other than the visibility of a company to institutional investors.

Covrig, Lau, and Ng, (2006) for example, included three additional proxy variables for visibility two of which have been employed by other scholars as proxies for "prudential quality". They examined the similarities and differences between the preferences of foreign and domestic fund managers from 11 developed countries (U.S. excluded) in the years 1999 and 2000. They argued that their study "employed more effective measures" of firm visibility than prior studies because they had expanded

the variables to include the number of analysts following a stock (Analyst Coverage); a dummy coded independent variable based on whether a company's stock was a member of a major international index (Index Membership) and a dummy coded independent variable based on whether a company's stock was listed on one or more foreign exchanges (Foreigh Listing/ Depository Receipts).

Covrig, Lau, & Ng, (2006) saw analyst coverage as a good proxy variable for visibility based on their assumption that the larger the number of analysts following a stock the greater the visibility of the company in the markets. Concerning the share ownership of foreign institutions the regression model cross-sectional mean coefficients of their visibility proxy variables were foreign sales at 3.03 (t=3.63), analyst coverage at 0.30 (t=5.69), index membership was 4.22 (t=7.65) and depository receipts at 2.50 (t=4.97). Only analyst coverage had a significant, albeit small, effect on domestic institutional share ownership (β=.1, t=3.69). Interestingly, though the magnitude of the analyst coverage coefficient among the visibility variables was small, adding it alone among them to their company characteristics regression model reduced the market-to-book ratio to an insignificant effect and company size became statistically insignificant as a characteristic prefered by foreign investors. You will recall that company size has consistently been found to be a major (typically the major) effect on institutional share ownership in extant literature.

Based on the results it looks plausible that the size effect on foreign ownership was partially subsumed by the effect of analyst coverage and the economic significance of the role analyst coverage plays in foreign investor stock ownership is related to the size effect. Covrig, Lau, and Ng use their results concerning the proxy variables to argue that firm visibility helps explain the preferences (based on ownership) of foreign institutions. However, at least concerning analyst coverage, there is an alternative plausible explanation. Rather than analyst coverage causing foreign investor ownership their ownership might cause analyst coverage. The income of analysts depends on the brokerage commissions of their employers meaning there is a major financial incentive for analysts to cover the companies that institutional investors trade. Foreign investors are more active stock traders than

domestic investors (Dahlquist and Roberston, 2001) so the level of analyst coverage may be more influenced by the level of foreign investor ownership than foreign ownership by analyst coverage.

2.5.1.9 Prudential Quality Attributes

Brands, Gallagher and Looi (2006) used analyst coverage not as a proxy for visibility but instead as a proxy for prudential quality. They studied the portfolio preferences of Australian institutional investors looking for links between the types of stocks held and individual fund investment objectives and prudential management obligations. Unlike the earlier study of prudential quality by Del Gercio (1996) who had evaluated institutional preferences for stocks at the aggregate level these researchers used data on individual fund holdings to improve granularity and enable their examination of the diversity in preferences between different sized funds and different fund orientations towards industry sectors. For example, Brands et al. were able to show that managers of smaller funds exhibited a greater preference than big funds for the stocks of companies with larger market capitalisation and the companies they preferred often had more analyst coverage and a lower variation in analyst earnings forecasts.

They found weak evidence that fund managers overall preferred stocks which had more analyst coverage and where there was a higher degree of consensus among the earnings forecasts. However, both characteristics were more important for the institutional ownership of smaller companies which also were found to have greater share price volatility. The managers of smaller funds were found to exhibit a greater preference than big funds for the stocks of companies with larger market capitalisation and the companies they preferred often had more analyst coverage and a lower variation in analyst earnings forecasts, the last characteristic having the largest effect on ownership. They suggested their results supported the hypothesis that managers are concerned with prudential considerations and tend to include in their portfolios securities whose ownership is easier to justify.

An interpretation also consistent with the results could be that they imply that information quality effects institutional investor preferences more than firm visibility. Because their standard deviation of analyst's earnings forecasts variable has been used within the accounting and finance disciplines as a proxy for the quality of corporate information (e.g. Bailey, Li, Mao, & Zhong, 2003; D'Mello & Ferris, 2000). The Brands et al., results show the standard deviation in analysts' forecasts to have a much greater magnitude of effect on fund manager share ownership than analyst coverage (Disaggregated Data Yr 2000: -0.0723 (t=-4.43) vs 0.0001 (t=8.47); 2001: -0.1443 (t=-8.35) vs 0.0002 (t=11.54). If the quality of information is the more important antecedent then it is reasonable to hypothesise that the magnitude of the effect might be greater for the managers of small funds which are more reliant than big funds on broker analysts for research because they do not have large in-house analyst teams. Brands et al., found this to be the case.

The Brands et al., study is the only research looking at the relationship between institutional investor preference and the standard deviation of analyst forecasts though others have examined prudential quality using different proxy variables. The choice of proxies has frequently been the same or very similar to Covrig et al.'s proxies for firm visibility. For example, Aggarwal et al., (2005) included American Depository Receipts (ADRs) which are shares redenominated in US dollars by foreign companies to trade in the United States. They also included a variable based on an index created to capture a company's accounting quality and transparency. Their "accounting quality" variable was a score based on an index of underlying variables such as auditor quality, reporting of consolidated accounts, receiving a clean audit opinion and accounting standards. Like Covrig et al., they also included foreign listing which in their case were foreign companies with shares listed in the United States.

Whereas Covrig et al., saw ADRs and foreign listings as proxies for firm visibility, Aggarwal et al., assumed that they, along with accounting quality and a US listing might be indicators to institutional investors that a company was transparent and had high disclosure standards and therefore had

prudential quality. Aggarwal et al., (2005) included the number of analysts covering a company as one of their control variables on the basis that it along with company size were "two of the strongest determinants of US fund investment decisions" a proposition I have earlier questioned. This inclusion in their regression models means their final study incorporated approximations for three of Covrig et al.'s four proxies, used not as proxies for firm visibility but for prudential quality.

Unsurprisingly the results of the Aggarwal et al., study are broadly consistent with Covrig et al.'s concerning the three shared variables. Depending on your view this could mean either that institutional investors have a preference for visible companies or they prefer those perceived to be transparent and reliably accounted. The strong effect of foreign listings on institutional investor preferences seen in both studies had earlier been found by Dahlquist and Robertsson (2001) and Kang et al., (1997). Both had been inclined to the Covrig et al., view that this suggested that institutions preferred the shares of companies that were more visible to them. Aggarwal et al., interpreted this as having more to do with the boost to corporate credibility that comes from a foreign listing. The interpretations are not mutually exclusive since investors may tend to own companies that are visible and credible.

2.5.1.10 Brand Perception Attributes

Frieder and Subrahmanyam (2005) investigated the effects of company brand perceptions on institutional investor preferences. Their study used data from Landor Associates for the following three brand perception variables:

Share of mind was a variable that represented the familiarity of a brand among the public;

Esteem was a variable that represented how well the brand was regarded;

Image power was a variable that represented the overall ranking of brand strength.

Included in their tests were regressions to see if institutions preferred the shares of firms with high visibility brands which they called the “recognition” hypothesis. They assumed high visibility brands had greater information flow and that institutions would prefer them less than individuals did. Thus, well-known brands were assumed to do for domestic company stock with individuals what strong exports had been hypothesised by Dahlquist and Robertsson (2001) and Kang et al., (1997) to do for foreign domiciled firms with institutions. Using aggregated proportional ownership data a negative preference of institutional investors meant a positive preference of individual investors.

In their first stage regression to explain institutional holdings in 3,324 companies at the end of 1990 they used non-marketing firm characteristics of the sort used in aforementioned studies (i.e. company size, leverage, book/market, return on assets, 12mth return, Beta etc.). In the second stage they looked at whether the brand perception data for 91 of these companies could explain the residuals from the institutional holdings regressions. They thus estimated a benchmark level of institutional holdings before regressing abnormal or unexplained institutional holdings against the brand measures.

Frieder and Subrahmanyam (2005) found that both share of mind and image power were strongly negatively correlated with abnormal holdings while Esteem was not significant. The scholars concluded that institutional investors had a strong negative preference for high visibility stocks with well-regarded brands meaning individuals preferred them. They reran their two stage regressions on annual data from 1991 to 1999 inclusive and found the effect of share of mind on institutional shareholdings was large, negative, statistically significant each year and relatively stable across the whole period.

Frieder and Subrahmanyam interpreted their results as providing support for their hypothesis that companies with strong brands attracted the investment of individuals either because of their visibility or because the quality of their management was inferred from the perceived quality of the brands they owned. Frieder and Subrahmanyam argue that visibility is a driver of stock ownership for

investors but that for institutions the source of visibility is something other than brand perceptions. According to Frieder and Subrahmanyam individual investor enthusiasm for the shares of companies that own well-known brands may have driven-up prices of these companies' shares to levels at which institutions found them unattractive.

2.5.1.11 Constraints of the Correlational Studies

The Frieder and Subrahmanyam (2005) research provides a helpful corollary for the constraints from potentially confounding assumptions effecting the extant literature using aggregated share ownership data to study investor preferences. The first constraint is that if some preferences for company/stock attributes are shared by institutions and individuals then, because the proportional share ownership would be at or close to the market stasis, these preferences would not be detectable or not practically significant using aggregated stock ownership data. The second is that even where a negative correlation with the aggregated stock ownership variable had been found it may not necessarily be the case that the regressed independent variable denotes an attribute liked by individual investors and not institutional investors it could be that both categories of investor dislike the attribute but individual investors dislike it less or are not influenced by the attribute to the same extent as institutional investors. The research results concerning the attribute "leverage" (i.e. the ratio of company debt to company equity) seem to be a good case in point (e.g. Aggarwal, Klapper, and Wysocki, 2005; Dahlquist and Robertsson, 2001; Kang and Stulz, 1997).

The other constraint is that the effects of changing share price related valuation considerations on institutional investor decisions cannot be disentangled statistically or practically from the effects of preferences for firm/stock attributes. Do, for example, institutional investors like companies with strong brands but just not at the high valuations that were prevailing at the time of the Frieder and Subrahmanyam study? We cannot answer that question from the data. Researchers cannot determine how much their institutional share ownership regression models are capturing the effects of choice set attribute changes (i.e. context effects) from price related value change considerations

possibly resulting from the actions of other participants in the market and how much is capturing enduring preferences for firm or stock attributes. This point can be illustrated by looking more closely at the data reported by Dahlquist and Roberston (2001) which has been reproduced along with additional workings in Table (3) on the next page.

Almost all correlational studies of investor preference have used pooled data based on a few years of observations. This means the total sample size is larger which can help achieve statistically significant regression results. However, data pooling can mask the inherent volatility of context effect sensitive coefficients such as those linked to changing share prices.

Dahlquist and Roberston (2001) compared the ownership of foreign institutional investors with domestic institutional investors in Sweden to see if there were differences in their preferences for firm attributes. Their analysis included mostly the same independent variables as the earlier U.S. studies. However, different from most studies, they reported both the pooled data regression results (n=868) and individual year regressions from 1993 to 1997 inclusive. They conducted multiple regressions where the dependent variable was the ratio of the weighting of each company in institutional investor portfolios to the company's weighting in the market. They assumed the greater the proportion of a company's foreign shareholding compared to the overall proportion of foreign investment in the market the more the company was preferred.

Dahlquist and Roberston (2001) reported heteroskedasticity-consistent standard errors so I have calculated the t scores in the table from these. To illustrate the contrast between the relatively stable coefficients for company size, which they measure as market capitalisation, and the coefficients for other independent variables % Relative β for each coefficient has been included in the table and has been calculated as follows: $\%\text{Relative}\beta = 1/(\beta_{\text{Company Size}} / \beta_{\text{Independent Variable}})$. It can be observed from the results that the coefficients most sensitive to share price change, the price

Table 3

Regression of Foreign Institutional Ownership on Swedish Company Characteristics

	1993	1994	1995	1996	1997	Pooled
Company Size	15.8	17.48	13.23	15.9	16.47	14.57
Standard Errors	(3.14)	(2.52)	(2.61)	(2.68)	(2.76)	(1.17)
t	*5.03*	*6.94*	*5.07*	*5.93*	*5.97*	*12.45*
Dividend Yield (DY)	-16.28	-9.29	-3.94	-4.29	-1.88	-4.30
Standard Errors	(4.24)	(3.09)	(1.98)	(1.60)	(0.97)	(0.90)
t	*3.84*	*3.01*	*1.99*	*2.68*	*1.94*	*4.78*
% Relative β	-103%	-53.1%	-29.8%	-27.0%	-11.4%	-29.5%
Return	-0.01	-0.06	-0.19	-0.06	-0.22	-0.01
Standard Errors	(0.05)	(0.14)	(0.16)	(0.11)	(0.08)	(0.04)
t	*0.20*	*0.43*	*1.19*	*0.55*	*2.75*	*0.25*
% Relative β	-0.1%	-0.3%	-1.4%	-0.4%	-1.3%	-0.1%
Price Related Risk Variables						
Stock Beta	-3.66	-26.98	-3.63	-1.42	-36.19	-7.45
Standard Errors	(7.74)	(12.68)	(12.04)	(12.04)	(13.33)	(5.04)
T	*0.47*	*2.13*	*0.30*	*0.12*	*2.71*	*1.48*
% Relative β	-23.2%	-154.3%	-27.4%	-8.9%	-219.7%	-51.1%
Residual Variance	-4.06	19.88	42.82	-21.6	-16.88	2.49
Standard Errors	(5.38)	(45.01)	(25.88)	(16.50)	(26.74)	(5.82)
T	*0.75*	*-0.44*	*-1.65*	*1.31*	*0.63*	*-0.43*
% Relative β	-25.7%	113.7%	323.7%	-135.8%	-102.5%	17.1%
Financial Quality Variables						
Book-to-Market Ratio	-5.85	-8.22	-31.94	-15.14	-14.62	-12.45
Standard Errors	(14.2)	(5.70)	(12.80)	(12.31)	(10.46)	(4.81)
T	*0.41*	*1.44*	*2.50*	*1.23*	*1.40*	*2.59*
% Relative β	*-37%*	*-47%*	*-241%*	*-95%*	*-89%*	*-85%*
Current Ratio	8.92	17.17	9.45	8.58	5.9	7.48
Standard Errors	(5.03)	(4.49)	(2.88)	(2.86)	(1.91)	(1.53)
T	*1.77*	*3.82*	*3.28*	*3.00*	*3.09*	*4.89*
% Relative β	*56%*	*98%*	*71%*	*54%*	*36%*	*51%*
Leverage Ratio	-1.36	-1.05	-3.42	-3.64	-0.41	-1.82
Standard Errors	(1.30)	(1.42)	(2.27)	(3.26)	(2.59)	(0.75)
T	*1.05*	*0.74*	*1.51*	*1.12*	*0.16*	*2.43*
% Relative β	*-9%*	*-6%*	*-26%*	*-23%*	*-2%*	*-12%*
Return on Equity	0.12	0.00	0.31	-0.37	-0.21	-0.08
Standard Errors	(0.12)	(0.23)	(0.31)	(0.19)	(0.12)	(0.09)
T	*1.00*	*0.00*	*1.00*	*-1.95*	*-1.75*	*-0.89*
% Relative β	*0.8%*	*0%*	*2.3%*	*-2.3%*	*-1.3%*	*-0.5%*
N	154	161	184	184	185	868

This table shows the results of multiple regressions of foreign ownership on company characteristics. The t scores were calculated by dividing the regression coefficients by the reported heteroskedasticity-consistent standard errors.
The relative effect of the coefficients of independent variables compared to the coefficients of company size are calculated as follows: %relative $\beta = 1/(\beta_{\text{Company Size}} / \beta_{\text{Independent Variable}})$.
Source: Adapted from Dahlquist and Roberston (2001) for inclusion in this thesis.

related risk variables (Stock Beta and Residual Variance) have the highest standard errors and are not statistically significant even in the pooled regressions.

The contrast between the relatively stable coefficients for company size and the highly unstable Beta weights for price sensitive variables such as dividend yield can be seen from the change in the relative effect sizes over the course of the study. In 1993 the magnitudes of the coefficients of company size and dividend yield were of roughly similar size. Subsequently the company size coefficient remained relatively stable while the weight of the dividend yield coefficient fell 50% in the first period and by 1997 had declined 90% compared with 1993.

Contributing to the heterogeneity in dividend yield coefficients could be the cumulative effect of institutional investor preference changes occurring simultaneously with rapid share price changes (possibly because of them). This phenomenon has been observed to occur during market crashes and periods of deteriorating economic conditions when institutions make what is often called a "flight to quality" (Hartmann, Straetmans, & Vries, 2004). In such circumstances institutional investors might switch their holdings in favour of dividend paying companies because they are seen as higher quality stocks.

Del Guercio (1996) considered dividend yield to be one of the characteristics of higher company financial quality. However, she, like all subsequent researchers (e.g. Aggarwal, Klapper, and Wysocki, 2005), found the sign on the coefficient to be consistently negative meaning that institutional investors exhibited an aversion to high dividend yield stocks. Therefore, the declining magnitude of the negatively signed dividend yield coefficients in the Dahlquist and Roberston (2001) study (Table 3) suggests a greatly reducing aversion to yield among the institutions over the study period, particularly in 1997. Since this coincides with the start of the Asian financial crisis a plausible explanation for the reducing aversion to dividend yield could be that the preferences of institutional investors in Sweden underwent a shift driven by a "flight to quality" scenario. If this scenario applied in 1997 you would expect also to see evidence of this shift to quality in other output data related to institutional investor preferences for high quality companies.

Among the Dahlquist and Roberston proxy variables for company quality only ME/BE is directly sensitive to share price changes. This is because market equity (the ME in ME/BE) is measured by multiplying the number of shares outstanding by the share price. Taken at face value, the size of the negative relation between foreign ownership and ME/BE from the regression of pooled data (see Table 3) suggests that institutional investors have a strong aversion to companies with a high book to market ratio. However, after doing robustness checks on the results using dummy variables to pick-up industry-specific fixed effects the authors found this aversion was explainable based on the tendency of institutional investors to underweight the Swedish construction sector.

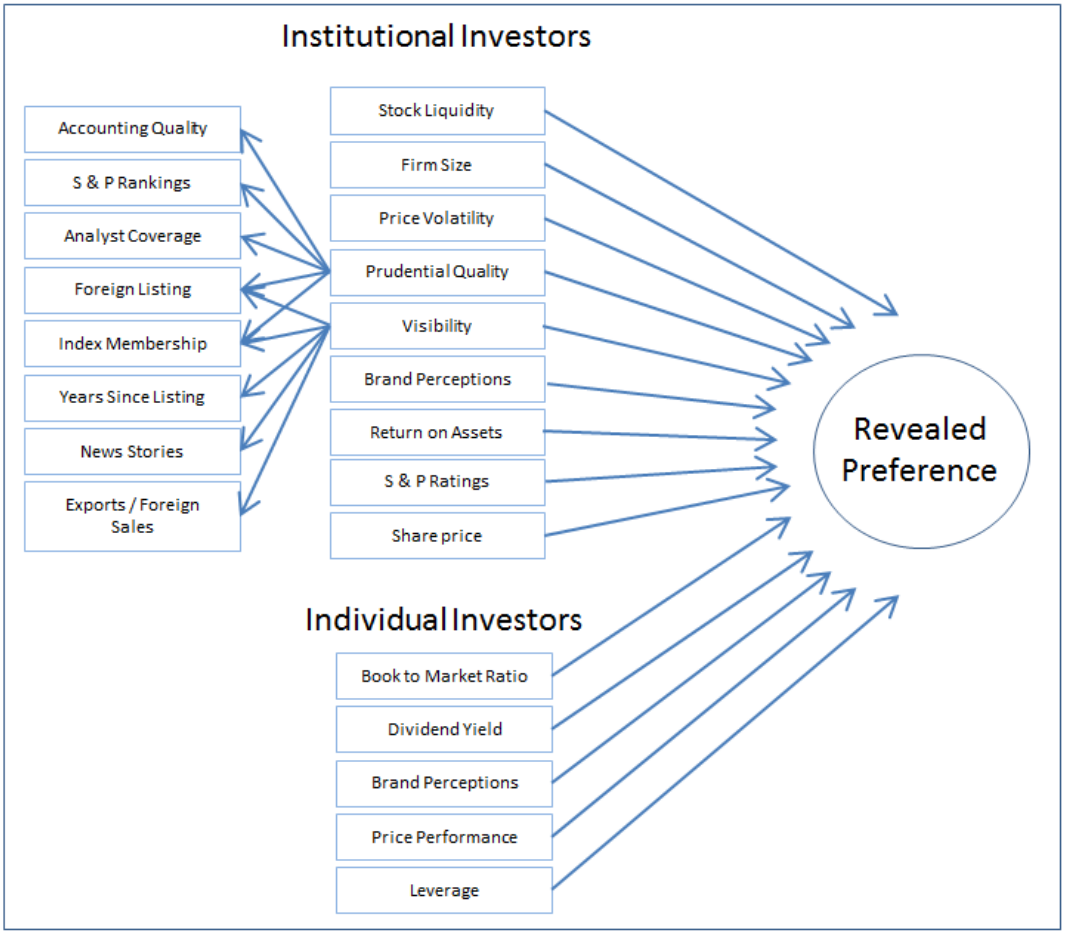
If you look at the results for individual years, 1995 saw a massive increase in the magnitude of the effect. This was also the only year where the coefficient was statistically significant. Given the comments from the authors about the influence on results from institutional investors underweighting construction companies during the course of their study it seems plausible that 1995 was the year they sold construction companies and that this is what is reflected in the data. Though the authors do not comment on this specific year this plausible scenario highlights the possibility that conclusions drawn from correlational studies about investor preferences regarding high context-effect sensitive attributes may apply to certain times and not to others.

2.5.1.12 Consolidation of Preference Attributes from Empirical Literature

In Figure 2 below a conceptual framework of investor preference based on a consolidation of the literature from the aforementioned correlational studies is presented. Each attribute is titled consistent with the preceding review of the empirical literature. Notwithstanding reservations about interpreting a negative correlation between an attribute and institutional investor preference as indicating individual investor preference for that attribute (e.g. Frieder and Subrahmanyam, 2005) the diagram includes relationships based on that assumption for the sake of the completeness of the conceptual framework.

Figure 2

Conceptual Framework of Investor Preference From Consolidation of Correlational Studies Literature



Note: The paths included are for attributes found to be positively correlated with high aggregated institutional investor share ownership or high aggregated individual investor share ownership respectively in literature. Source: Prepared for inclusion in this thesis

2.5.2 Qualitative Research on the Conduct and Content of Investor Meetings

The literature on investor meetings is relevant to this study of the attributes that matter to investors because these face-to-face private meetings held by institutional investors with the senior executives of listed companies have been found to be the most important source of investment information for institutional investors (e.g. Bence, Hapeshi and Hussey, 1995; Gaved, 1997; Barker, 1998; Holland and Doran, 1998; Hendry, Sanderson, Barker and Roberts, 2006; Marston, 2008; Barker, Hendry, Roberts and Sanderson, 2012). Those findings suggest that the questions asked in investor meetings probably contribute in some way to the making of evaluative judgements by institutional investors concerning the constructs that matter to them about companies when making their investment decisions. It has also been well established that the informational content of the meetings is not perceived by participants as price sensitive (Holland, 1998; Hendry et al., 2006; Barker et al., 2012).

The management/company attributes identified in the qualitative research on investor meetings are consolidated from the literature in Table 4 on the next page. They are not presented as a preference model because of how the data was gathered and reported in that literature which will be discussed later in this section. It stands out that none of these constructs have been among the variables researched in the earlier reviewed correlational studies on investor preference. Each construct is labelled Q# to designate it as an attribute identified by the qualitative research on investor meetings to distinguish these constructs from attributes identified in the other literature reviewed in this chapter when the findings of this study are discussed later in this thesis. Each attribute is titled consistent with the following review of the qualitative literature and a definition is given based on the interpretation of the construct according to how the data is reported in the relevant literature plus personal experience of common usage in capital markets.

Table 4

Table of Management/Company Attributes Identified by Research on Investor Meetings

Label	Attribute	Definition	Reference
Q1	Management Quality	The perceived competence and expertise of senior company executives.	Barker, 1998; Barker, Hendry, Roberts and Sanderson, 2012; Gaved, 1997; Hendry, Sanderson, Barker and Roberts, 2006; Holland, 1998; Holland and Doran, 1998; Roberts, Sanderson, Barker and Hendry, 2006.
Q2	Quality of Strategy	The qualitative evaluation of the plans of management for achieving success for the company in the future.	Barker, 1998; Barker, Hendry, Roberts and Sanderson, 2012; Hendry, Sanderson, Barker and Roberts, 2006; Roberts, Sanderson, Barker and Hendry, 2006.
Q3	Management/Strategy Coherence	The perceived coherence between management and their plans for achieving success for the company in the future.	Holland and Doran, 1998; Roberts, Sanderson, Barker and Hendry, 2006.
Q4	Trust	The perceived trustworthiness of senior company executives.	Holland, 1998; Roberts, Sanderson, Barker and Hendry, 2006.
Q5	Confidence	The qualitative evaluation of the ability of a company to meet institutional investor expectations.	Barker, Hendry, Roberts and Sanderson, 2012; Hendry, Sanderson, Barker and Roberts, 2006; Holland, 1998.
Q6	Competitive Position	The qualitative evaluation of how a company stands competitively in relation to its peers.	Barker, Hendry, Roberts and Sanderson, 2012.
Q7	Business Structure	The perceived structure of a business concerning where and how revenue is generated and costs managed.	Barker, Hendry, Roberts and Sanderson, 2012.
Q8	Investment Plans	The qualitative evaluation of the plans management has for the allocation of financial resources to investments.	Holland, 1998; Roberts, Sanderson, Barker and Hendry, 2006.
Q9	Response to Technology	The qualitative evaluation of how a company is responding to technological change.	Holland, 1998.
Q10	Innovation	The qualitative evaluation of the innovativeness of a company.	Holland, 1998.
Q11	Management Attitudes	The perceived mental dispositions of management executives towards their business environment.	Barker, 1998; Barker, Hendry, Roberts and Sanderson, 2012; Holland, 1998.

2.5.2.1 Major Findings of the Studies on Investor Meetings

According to Roberts, Sanderson, Barker and Hendry (2006) investor meetings may serve the general interests of institutional investors by ritually subjecting company executives to the demands of shareholders to deliver value. However, the research on investor meetings has not found this to be the major purpose of the meetings (Hendry et al., 2006). Instead the dominant theme has been that the meetings have high informational value and confer on fund managers a competitive edge (Barker et al., 2012).

Barker et al., (2012) conducted interviews with 19 senior fund managers from 11 asset management companies. The interviews averaged 80 minutes in length and each was attended by at least two people from each institution's research team. They also directly observed eight meetings hosted by the fund managers for the chief executives or finance directors of large companies in which the funds held shares. The goal of their research was to see why fund managers attached so much importance to the face-to face meetings.

They concluded that it was the view of institutional investors that their privileged access to senior executives allowed them to judge whether the attitudes and abilities of management would result in better or worse company performance than the market was expecting at that time. They found that fund manager decision making placed great emphasis on the assessment of a manager's behavioural attitudes and inherent abilities. The central question answered by these meetings they found was: are management competent or able? Direct personal contact in private meetings was perceived to provide the best mechanism for making the evaluation. The researchers observed that:

> *"...the emphasis in the meetings was overwhelmingly on the judgement of top management...* (and) *it was often not the answers they were looking for so much as how those answers were given*." (Barker et al., 2012, p.215)

In addition to the role played by investor meetings in fund managers' evaluations of management they also found they are perceived to be useful as economically efficient mechanisms for building an understanding of a company. Senior management were viewed by institutions as experts regarding their own business. Direct communications with them helped institutions to make sense of the main determinants of business performance, the strategic direction, business structure and the competitive position of the company. Meetings were perceived to be particularly valuable if they caused investors to change their assumptions or if they strengthened the confidence of investors in their opinions.

Whereas, Barker et al., (2012) focused on exploring why investor meetings are important, Hendry et al., (2006) examined the role the meetings play in the relationships between listed companies and institutional investors. Like Barker et al., they used interviews and participant observation. Eighteen interviews were conducted with institutional investors plus they observed eight meetings between senior company executives and institutional investors, five of whom were existing shareholders. Going into the study they expected that institutional investors would act out the identities of owners or principals either be using the meetings to hold their fiduciaries to account or monitor them as agents. Instead they found the focus of the meetings was on refining the information the investors needed for making investing decisions. This was typically information of a more judgemental kind such as whether the company was being well or badly managed. However, as one interviewee observed: "a 'good' management team might well be over-rated by the market and so be a bad investment, while a 'bad' one might be excessively discounted making the stock a good buy" (Hendry et al., 2006, p.1111). They concluded that it was not just the information that mattered to investors but also determining the extent to which that information was already reflected in the share price.

The findings of Hendry et al., (2006) are consistent with an earlier study by John Holland (1998) who explored the role of investor meetings from the perspective of company executives. He based his research on interviews with the executives of 33 large UK listed companies. He examined how the private meetings were conducted and explored their potential role as a means of resolving

information asymmetry in financial markets. He concluded that investor meetings provided the only efficient means of releasing certain soft or qualitative kinds of corporate information. Like Barker et al., he saw a strong economic incentive for investor meetings because of the high associated costs and lost management time if all parties were allowed to meet and evaluate management. Executives were also found to view the meetings as a way of actively cultivating institutional investor trust and confidence in the management team. This he believed was to improve the credibility of their company's subsequent public disclosures. Holland compared the information agendas for meetings across his sample and found they were consistent across the cases. I have reproduced the information from the Holland (1998) study in the table below.

Table 5

Qualitative Company Variables Common to UK Company Investor Meeting Agendas

Quality of management, strategy and coherence
Recent changes in the above and in corporate succession and management style
Supportive company climate for innovation and long term investment in productive and human assets
Flexibility of company to technological change
Role of internal financial resources in above
Management attitudes to the above, to profitability, and to return to shareholders

Source: Reproduced from Holland (1998)

2.5.2.2 The Role of "Indirectly Financial" Variables in Decision Making

According to Holland institutional investors used the subjective evaluative company variables from investor meetings as "intermediate means to create information about more fundamental variables such as next period expected cash flows and earnings" (Holland, 1998, p.48). He reported that the company executives he interviewed argued that institutional investors preferred intermediate variables because they were closer to their future oriented valuation model variables than published historical financial numbers and also because real and financial corporate variables were difficult for institutional investors to directly access and observe. Based on this evidence Holland's variables can be seen as a sub-category of non-financial variables which could be termed 'indirectly financial'. The term "indirectly financial" is appropriate because though they are not financial themselves they are employed by institutional investors for the purpose of formal financial modelling due to their perceived relationships with the drivers of future financial performance and because they provide confidence about modelled financial expectations. They are variables that are translated through the financial models created by institutional investors into their expectations for the future financial performance of each investee company.

Indirectly financial variables have not been examined for their role as antecedents of institutional investor preference other than being identified in the research on investor meetings and the interpersonal relations between fund managers and company executives reviewed above. Given the high degree of importance attached by institutional investors to gathering information related to these constructs it seems likely that management quality and the quality of company strategy are among the major effects on institutional investor preference. However this hypothesis is based purely on drawing inferences from the qualitative studies on investor meetings. What is apparent in the literature is that institutional investors seem to use their meetings with company management to make subjective evaluative judgements and that these judgements include both elements of granularity as is needed for formal financial modelling and also more holistic assessments of

management and a company's prospects which also have a bearing on institutional investor decision making.

2.5.2.3 Management quality

According to the research findings on investor meetings institutional investors make evaluative judgements about the quality of management (Barker, 1998; Barker et al., 2012; Gaved, 1997; Hendry et al., 2006; Holland and Doran, 1998; Roberts et al., 2006). It is unclear from the research reporting what attributes of management are evaluated to arrive at the conclusion that one management team is of a higher quality than another.

Evaluating management quality is perceived by institutional investors as playing a very important role in making investment decisions so understanding the judgement constructs that imply the positioning of a company on the quality of management construct is important to understanding the antecedents of institutional investor preference. The constructs in this implicative relationship that imply positions on the management quality construct can be classified as superordinate constructs based on the definition of Caputi, Berger and Pattison (1990).

The researchers who have studied investor meetings have not been concerned with issues of superordinacy and subordinancy among the constructs they have identified or with the structure of constructs within a nomological network of institutional investor preference. Their goals were to understand the nature of investor meetings as perceived by company executives and institutional investors and the nature of their interpersonal relations. From the excerpts of interviews scattered as quotes through the literature we catch what amounts to glimpses of some variables which may be super-ordinate to management quality though the quotes are sometimes contradictory.

Ability, competence or expertise:

> "*A good meeting is one where we come out knowing that the management have either got it or haven't got it*." (Institutional Investor quoted in Hendry et al., 2006, p.1110)

"One analyst in this study described the purpose of company meetings as to 'get some impression as to how they (executives) *articulate their strategies... how knowledgeable they are about their competitors... their competence'."* (Quoted in Barker et al., 2012, p.216)

Confidence:

"...*usually that* (confidence) *comes with having met them* (management) *more than once*," (Institutional investor quoted in Barker et al., 2012, p.215)

"*What's been important has been good communication of the measurement objectives that people should use and then broadly speaking, not universal, but substantial achievement of those objectives*." (Investor Relations Manager quoted in Hendry et al., 2006, p.1120)

"*One of the things you cannot do is surprise the market."* (Investor Relations Manager quoted in Hendry et al., 2006, p.1119)

"*If the institutions feel the Chairman is hopeless and looks like a rat who's just got out of bed in the morning, and does not understand the company, this does not inspire confidence in the company by the institutions... what they're really judging is their confidence"* (CFO quoted in Holland, 1998, p. 48)

Trust:

"'Trust' observed one 'is very, very important', because if the market didn't trust you, it wouldn't support you when you wanted more capital: you had to 'earn… the right to make investment decisions'." (Investor Relations Manager quoted in Hendry et al., 2006, p.1119)

"*They want to look in his* (the CEOs) *eyes. Particularly with us the last few years its been about 'do I trust this person to deliver on what he says'. They don't have any more information than anyone else, but I think having met the guy and looked in his eyes, I think on the balance of evidence they probably felt 'I think he can do what he says'. A lot of it is about chemistry. 'Do*

I actually think this guy can turn the business around '." (Investor Relations Manager quoted in Roberts et al., 2006, p.285)

Personal characteristics:

"*I think their assessment of the sort of personal characteristics of the two of them (CEO and CFO) probably then feeds across into their subsequent view of the rest of the team... and I think that then rubs off in their perception of the company."* (Investor Relations Manager quoted in Roberts et al., 2006, p.286)

Competence/expertise, trust and confidence are constructs that have been extensively studied in research on consumer behaviour. That there is a link between investor decision making and consumer behaviour is not a new observation. Thaler (1980) commented on the obviousness of such a link and it has also been argued that "financial markets provide a rich environment to study consumer behaviour" (Wilcox, 1999, p.90). However, the incidental and scattered quotes from investor meetings research, which is all we currently have to go on concerning attributes that are subjective evaluative judgements, does not seem to provide an adequate basis for advancing propositions concerning the attributes of companies that matter most to investors. For a start, individuals do not have access to investor meetings so are the variables evaluated by institutional investors from those meetings not important to individuals or are they relying instead on alternative sources of information to make their evaluative judgements of those variables.

Also, it cannot be assumed that the variables chosen for inclusion in the research articles via quotations from research participants constitute a complete set of the indirectly financial attributes that are antecedents of institutional investor preference. They were likely selected for inclusion in the articles because they supported the researchers interpretations of their data and these interpretations are constrained by the idiosyncratic purposes of their studies. For example, Holland (1998) is the only scholar who specifically mentioned credibility as a variable. He saw credibility as a

goal of management and interpreted its importance to the desire of management to positively influence fund manager attitudes about future corporate communications not future corporate performance itself. According to his interpretation, communicating credibility in investor meetings was important because it bolstered the credibility of subsequent communications that are not face-to-face, annual reports for instance. His interpretation is understandable given that the focus of his analysis was on the role of investor meetings within the context of all company communications channels to institutional investors.

2.5.2.4 The Quality of Corporate Strategy

Like management quality the quality of corporate strategy has been identified in the research on investor meetings as a variable important to institutional investor decision making (e.g. Barker, 1998; Barker et al., 2012; Hendry et al., 2006; Holland, 1998; Holland and Doran, 1998; Roberts et al., 2006). And, like management quality, the quality of strategy appears to be a subordinate construct with positioning implied from other evaluative judgement constructs (Caputi, Berger and Pattison, 1990).

Nowhere in the reporting of the investor meetings research is there a definition of strategy. Instead the writers appear to have assumed that readers are either aware of how the term is commonly used in capital markets or can infer its meaning from the context in which it is presented in their articles. Strategy from the context in which it is discussed in this literature seems to be related to the plans a company's management team have for achieving success for their firm in the future.

Some of the constructs identified in the meetings research as important to institutional investors may be super-ordinate to the strategy construct. However, their possible roles implying to investors the positioning of a company between the poles of good strategy and bad strategy has never been specifically mentioned in the literature. For example a company's response to technology (Holland, 1998), its investment plans (Roberts et al., 2006), innovation (Holland, 1998) and how the business is structured and responds to competition (Barker et al., 2012) are variables found to be considered by

institutional investors during investor meetings. These are evaluations that seem to have implications for how a company's strategy is judged overall. You can get a sense of the complexity of this construct from the following short selection of some definitions for strategy advanced in the business literature:

> *"... the choice of business model through which the firm will compete in the market place"* (Casadesus-Masanell and Ricart, 2010, p.195)

> *"...broad multifunctional decisions and actions*" (Oviatt & Bauerschmidt, 1991, p. 1409)

> "*... how a company competes in a given business and positions itself among its competitors."* (Andrews, 1980, p.15)

> *"...an integrated and coordinated set of commitments and actions designed to exploit core competencies and gain competitive advantage."* (Hitt et al., 2005, p.7)

2.5.2.5 Conclusions from the Literature on Investor Meetings

In the taxonomy presented in Table 6 on the next page it can be seen that the financial and non-financial independent variables from the correlational studies of investor preference (Columns One and Two) are different from the indirectly financial variables identified in the qualitative studies of institutional investor meetings with company management (Column Three). The literature on investor meetings raises several significant questions:

- Because there seems to be no obvious overlap between the objective and concrete variables studied in the correlations research on investor preference with the variables identified in the research on investor meetings does that mean, since investor meetings

Table 6

A Taxonomy of Variables in Literature on Institutional Investor Preferences and Investor Meetings

Financial Antecedents		Non-Financial Antecedents and Potential Antecedents			
		Purely Non-Financial		Indirectly Financial	
Variables	Literature	Variables	Literature	Variables	Literature
Company Size	Aggarwal et al., (2005), Bennet et al. (2003), Brands et al. (2006), Dahlquist & Roberston (2001), Del Guercio (1996), Falkenstein (1996), Gompers & Metrick (2001), Kang & Stultz (1997), Pinnuck (2001)	**# News Stories**	Falkenstein (1996)	**Management Quality/ Ability**	Barker (1998), Barker et al. (2012), Gaved (1997), Hendry et al. (2006), Holland (1998), Holland & Doran (1998), Roberts et al. (2006)
Book-to-Market Ratio or BE/ME	Aggarwal et al., (2005), Dahlquist & Roberston (2001), Del Guercio (1996), Falkenstein (1996), Gompers & Metrick (2001), Kang & Stultz (1997), Pinnuck (2001)	**Years Since Listing**	Bennet et al. (2003), Falkenstein (1996), Del Guercio (1996), Gompers & Metrick (2001)	**Quality of Strategy**	Barker (1998), Barker et al., (2012),Hendry et al. (2006), Holland (1998), Holland & Doran (1998), Roberts et al. (2006)
S&P Ratings	Del Guercio (1996)	**Exports/ Foreign Sales**	Kang & Stultz (1997), Dahlquist & Roberston (2001), Covrig, Lau & Ng (2006)	**Mgt/Strategy Coherence**	Holland (1998), Roberts et al. (2006)
Dividend Yield	Aggarwal et al. (2005), Bennet et al. (2003), Del Guercio (1996), Gompers & Metrick (2001)	**Analyst Coverage**	Aggarwal et al., (2005), Brands et al., (2006), Kang & Stultz (1997),	**Competitive position**	Barker et al., (2012)
Current Ratio	Dahlquist & Roberston (2001), Kang & Stultz (1997)	**SD of Analyst Forecasts**	Brands et al., (2006),	**Business structure**	Barker et al., (2012)
Leverage Ratio	Aggarwal et al., (2005), Dahlquist & Roberston (2001), Kang & Stultz (1997)	**Index Membership**	Covriget al. (2006), Del Guercio (1996), Gompers & Metrick (2001)	**Innovation**	Holland (1998)
Return on Equity	Aggarwal et al., (2005), Dahlquist & Roberston (2001)	**Accounting Quality**	Aggarwal et al., (2005)	**Investment plans**	Holland (1998), Roberrs et al. (2006)
Return on Assets	Aggarwal et al., (2005), Kang & Stultz (1997),	**Foreign Listing/ Depository Receipts**	Aggarwal et al., (2005), Covrig, Lau & Ng (2006), Dahlquist & Roberston (2001), Kang & Stultz (1997)	**Response to technology**	Holland (1998)
Share price	Bennet et al. (2003), Falkenstein (1996), Gompers & Metrick (2001), Kang & S	Brand Perceptions	Frieder & Subrahmanyam (2005)	**Management attitudes**	Barker (1998), Barker et al. (2012), Holland (1998)
Stock Liquidity	Aggarwal et al. (2005), Bennet et al. (2003), Brands et al. (2006), Covrig et al. (2006), Del Guercio (1996), Gompers & Metrick (2001), Pinnuck (2004				
Stock return	Bennet et al. (2003), Falkenstein (1996), Gompers & Metrick (2001), Kang & Stultz (1997),				
Stock Volatility/Beta	Bennet et al. (2003), Del Guercio (1996), Falkenstein (1996), Gompers & Metrick (2001), Kang & Stultz (1997),				

Source: Prepared for this thesis from the literature documented in the table

have been found to be the most valued source of information for institutional investors, the correlational studies have not captured any of the attributes that matter most to institutional investors?

- If there are relationships between the variables assumed to be important to investors by the researchers who undertook the correlational studies and the variables found in the qualitative studies of investor meetings what is the nature of those relationships?

- Could it be that the quality of management and the quality of corporate strategy which were identified as important by the investor meetings research literature are somehow related? For example, investors may tend to have higher regard for the strategies of companies when those companies are perceived to have high quality management? Both Holland (1998) and Roberts et al. (2006) found coherence between management and strategy was an important consideration of institutional investors.

- If the variables identified in the investor meetings are somehow interrelated then what may be the nature of those relationships because, other than as covered in the investor meetings research, there have been no empirical studies concerning investor definitions of, and relationships between, any of the variables identified in that literature?

- Are the variables found to be important to institutional investors in the investor meetings research also important to individual investors and, if so, how are individual investors making evaluative judgements on those variables, or if not, what attributes of companies matter most to them?

The first four questions cannot be answered from the extant literature but to explore the last question we now look at the literature on individual investor preferences.

2.5.3 Research on Individual Investor Preferences

The body of research specifically examining individual investor preferences though small in quantity relative to correlational studies on investor preference is important. This is because, unlike the correlational studies where variables seem to have been chosen based on normative models from finance, the studies of individual investor preferences included preliminary exploratory research. Unfortunately, as I will show in this critical evaluation of that literature, the exploratory stage of the research has been poorly reported in the articles and in one important case (i.e. Clark-Murphy and Soutar , 2004) it seems that the decision on variables for inclusion in the main study was influenced by interviews with securities analysts in a way that could potentially have biased the research towards attributes more easily evaluated by analysts than by individuals thereby constraining the validity of their conclusions.

2.5.3.1 Individual Investors as Non-Expert Consumers

Orthodox finance theory does not distinguish between individual investors and institutional investors. For example, according to the Capital Asset Pricing Model (CAPM) (Lintner, 1965; Mossin, 1966; Sharpe, 1964) all investors are assumed to be rational and risk averse and to form investment preferences for stocks based on their expectations about the financial returns and risks from alternative investments. However, as Fisher and Statman (1997) have argued, that investors are concerned with only returns and risks seems as unlikely as people constructing their diets caring only about cost and nutrition. And, whereas people are supposed by CAPM theory to hold diversified portfolios and be active traders it has been found that the typical individual investor is not diversified, holds assets for long periods of time, rarely selling, so does not fit the profile of a stock trader in CAPM theory (Aspara and Tikkanen, 2010; Warneryd, 2001).

It is probably more useful than perspectives from finance theory to think of individual investors as non-expert consumers. Owning stocks can be viewed as consumption (Statman, 2004) from which

emotional utility can be derived by individual investors in the present not only as investments (Aspara and Tikkanen, 2010). Investing can be seen as high-involvement consumption because it is a type of problem-solving behaviour where purchases are perceived as having high personal importance and involving comparatively high amounts of risk (Patterson, 1993).

Institutional investors can be seen as expert consumers based on Spence and Bucks' (1997) definition of an expert as a person who has acquired domain-specific knowledge through experience and training. The typical individual investor would lack the experience and training of an institutional investor so can be seen as a non-expert consumer. From this perspective, individual investors as non-expert consumers would be expected to differ from institutional investors in both the content of knowledge about objects of consumption and the way their knowledge is organised (Alba and Hutchison, 1987).

Consumers have been found to use category structures to differentiate between products (Srivastava, Alpert and Shocker, 1984). The basic level of categorisation is believed to be determined mainly by concrete perceptual attributes (Murphy and Smith, 1982). Deeper levels of categorization tend to be more abstract enabling finer discriminations between objects. The shift from the basic level to "deep structure" categories has been shown to occur with increases in expertise (cf. Alba and Hutchinson, 1987; Adelson, 1984; Schoenfeld and Herrman, 1982). Expert consumers have therefore a more complicated category structure which also differs from non-experts by the nature of the attributes used for evaluation because of the tendency towards a higher level of abstraction (Alba and Hutchinson, 1987).

Non-expert consumers may have a different understanding of the importance, the implications and relative determinant value of product attributes than experts. Therefore non-experts may weight more highly the attributes that are easily understood (Gardener, 1983), and, or, they may simplify choice tasks by selectively processing a subset of information (Wright, 1975). The difference between non-experts and experts could be accentuated in high-involvement consumption categories requiring

deep analytical processing if product attributes important to experts reside at a higher level of abstraction. This is because the expert may evaluate attribute information at the higher level of abstraction by using interpretative simplification through inferences from lower level attributes not considered or effectively processed by non-experts (Alba and Hutchinson, 1987). There is nothing in the extant literature to suggest that this is not the case with institutional investors and based on this theory both the content and organisation of knowledge could be dramatically different between experts and non-experts in a high-involvement highly analytical consumer category such as share investing though this question has never been specifically examined in literature.

2.5.3.2 Empirical Studies of Individual Investor Preferences

As mentioned earlier, individual investor preferences can be inferred from the correlational studies on institutional investor preference. This is because the research typically employs dependent variables based on aggregated institutional share ownership data (e.g. Aggarwal, Klapper and Wysocki, 2005; Dahlquist and Robertsson, 2001; Frieder and Subrahmanyam, 2005; Jain, 2007; Kang and Stulz, 1997) and because all shares are consumed it has been assumed that companies with low levels of institutional ownership (high levels of individual investor share ownership) are less preferred by institutions than individuals (Frieder and Subrahmanyam, 2005) and vice versa. However, using dependent variables based on aggregated stock ownership data means attributes equally preferred by institutional investors and individual investors are not distinguishable from attributes for which they have a shared aversion. Also, the research on investor meetings though identifying attributes that are probably preferred by institutional investors tells us nothing about individual investors because they do not have access to these one-on-one meetings with management.

The couple of studies that have been conducted specifically into individual investors provide confirmation that, like with institutional investors, perceptions of company management are important to individuals when making investment decisions (e.g. Clark-Murphy and Soutar, 2004; Nagy and Obenberger, 1994). Intriguingly the researchers have not found the quality of company

strategy to be an antecedent of individual investor preference (e.g. Clark-Murphy and Soutar, 2004; Nagy and Obenberger, 1994; Potter, 1971) though it was found to be very important to institutional investors (e.g. Barker, 1998; Barker et al., 2012; Hendry et al., 2006; Holland, 1998; Holland and Doran, 1998; Roberts et al., 2006). This difference with institutional investors may be plausibly explained if individuals make evaluative judgements about companies based on drawing inferences from past company and stock price performance or relying on other proxy variables though this has not been examined in literature. For example, individual investors if they do not feel they have the access to information or expertise to make evaluative judgements concerning a company's future strategy may assess strategy based on a company's past performance.

Because the research on individual investors adds an important dimension to understanding possible limitations in the large body of research based on correlational studies and because there appear to be some significant constraints on these studies from methodology it makes sense to examine them in some detail.

2.5.3.3 The Clark-Murphy and Soutar (2004) Study

Clark-Murphy and Soutar (2004) used an adapted conjoint analysis (ACA) approach to examine the share attributes that are valued by individual investors when they buy stock. They conducted a preliminary study which included 10 interviews with individual investors and a focus group. The participants were recruited from the client lists of a stockbroking company. The authors reported that they determined 11 attributes considered important by individuals when making stock selections from this preliminary study (Table 7 over page).

Table 7

Attributes and Levels Used in the Clark-Murphy and Soutar (2004) ACA Questionnaire

No.	Name	No.	Text	Utility

1	Dividend	1	Pays a regular dividend	110.51
		2	Not currently paying a dividend	1.42
2	Yield	1	High yield	101.49
		2	Average yield	62.31
		3	Low yield	2.67
3	Management	1	Management has a track record in this industry	106.64
		2	Some managers have a high public profile	19.91
		3	Management are known to you personally	33.29
4	Industry sector	1	Sector has a history of slow but steady growth	65.74
		2	Sector is subject to periods of growth and contraction	22.28
		3	Stock is in an emerging industry sector	58.13
5	Knowledge base	1	You have personal knowledge or experience of the industry	51.76
		2	You use the company's products	16.46
		3	You know of the company's products	31.70
6	Price trend	1	Price has been rising in the last few months	64.61
		2	Price has been falling in the last few months	22.65
		3	Price has been steady in the last few months	44.46
7	Price earnings ratio	1	High price earnings ratio	25.40
		2	Average price earnings ratio	58.06
		3	Low price earnings ratio	62.91
8	Price volatility	1	Price is often volatile	23.40
		2	Price is usually steady	54.35
9	Market status	1	Blue chip stock	98.47
		2	Growth stock	107.38
		3	Speculative stock	8.36
10	Source of recommendation	1	Recommended by your stockbroker	91.02
		2	Recommended in the financial press	80.50
		3	A tip or rumour from a friend	6.76
11	Principal place of operation	1	Company mainly operates in Australia	90.11
		2	Company mainly operates in Asia	10.93
		3	Company mainly operates in Europe or the USA	49.75

Source: Reproduced from Clark-Murphy and Soutar (2004)

Clark-Murphy and Soutar (2004) followed the individual investor interviews with separate interviews with financial analysts who provide research to individual investors though how many such interviews

were conducted was not reported. The analysts were asked to identify factors they believed were most significant when making stock evaluations and that in their opinion distinguished one stock from another. It seems from how Clark-Murphy and Soutar reported their research that the levels of the attributes used in their adaptive conjoint analysis questionnaire (two or three for each attribute) were not determined during the interviews and focus group with individuals but from the later interviews with analysts.

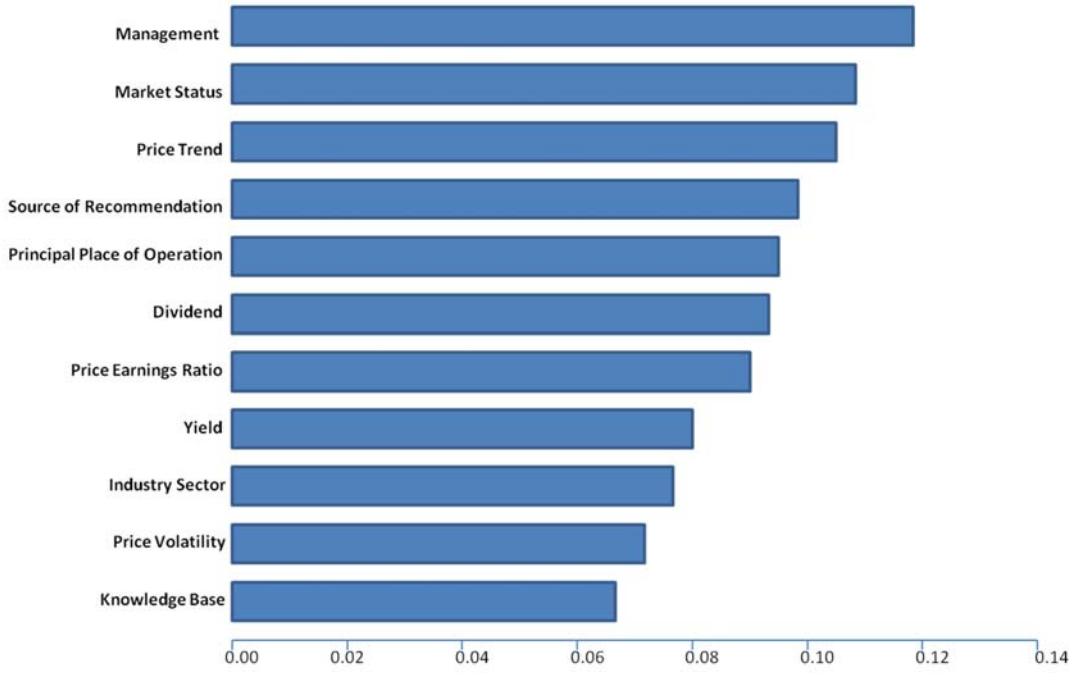
The adaptive conjoint analysis procedure employed by Clark-Murphy and Soutar used trade-offs between attribute levels rather than a full profile approach because they believed the high number of attributes made profiling unmanageable and would have placed a heavy burden on questionnaire respondents due to the complexity of presented profiles.

Clark-Murphy and Soutar used a computerised questionnaire that started by assessing the attributes believed more important by respondents (n=361) by ranking and rating attribute importance. This information was used to determine subsequent questions.

According to the results of their study, shown in Figure 3 on the following page, company management was the most important attribute considered by individual investors when choosing stocks. In the body text of their article they mention management quality as an attribute found during their preliminary interviews to be highly valued by individual investors. The levels of the attributes in conjoint analysis research are supposed to reflect the possible values for that factor that will enable researchers to describe an object in terms of its levels on the factors characterising it, in this case management quality on hypothetical stock selection (Hair, Black, Babin, Anderson, & Tatham, 2010).

Figure 3

The Relative Importance of Stock Attributes for Australian Individual Investors



Source: Reproduced from Clark-Murphy and Soutar (2004)

According to the text of the levels used for the management perceptions attribute in the Clark-Murphy and Soutar ACA questionnaire (Table 7) the highest value is “management has a track record in this industry”. The second level is “some managers have a high public profile”. The third level is “management are known to you personally.” These levels do not seem to reflect different values for the perception of the quality of management but rather look related somehow to differing degrees of an individual’s familiarity with management. Being known to the investor personally seems more likely to be an attribute that company management will have with analysts not individuals because analysts typically meet face-to-face with management in the course of their work. Individual investors rarely know the senior executives of companies personally.

If the first level is correct and individuals rely when making their evaluative judgements of management mostly on information about the track record of managers in the industry then other levels that might better capture the possible lesser values for this attribute could be "positive stories about management in the media" rather than "some managers have a high public profile" and "positive commentary about management in analyst reports" rather than "management are known to you personally." The levels for the management factor employed by Clark-Murphy and Soutar do not seem to capture the qualitative evaluative dimension implied by how they reported the conclusions from their preliminary study using interviews with individual investors. They reported that they found during the preliminary study that management quality was an important consideration of individual investors not management familiarity.

It seems from this research that individuals use some of the same criteria as institutional investors when making investment decisions but base their evaluative judgements on different sources of information. Since individual investors typically do not have direct access to senior company management it seems a plausible assumption that their evaluations of management quality could be informed by how they assess the past performance of management and, or how management are viewed in the media and by financial analysts. The importance of alternative sources of information to individual investors of information sources such as these that can proxy for direct interaction to aid their evaluation of corporate management seems to be confirmed by research conducted a decade before Clark-Murphy and Soutar by Robert Nagy and Robert Obenberger (1994). The contribution of this research and its shortcomings are also worthy of detailed examination.

2.5.3.4 The Nagy and Obenberger (1994) Study

Nagy and Obenberger (1994) sought to understand the investor decision processes of individual investors by asking which decision variables are the most important to individual investors and whether there were homogenous groups of variables that form identifiable constructs. They based their research on 137 usable responses to questionnaires mailed to 500 individual shareholders of US

Fortune 500 companies (a stock index originally determined by Fortune Magazine consisting of leading companies listed in the United States). Participants were requested to evaluate the importance of 34 variables the researchers had identified as potentially influencing equity investment decisions. Nagy and Obenberger reported that they based the determination of the variables incorporated in their questionnaire on "extensive testing" (Nagy and Obenberger, 1994, p.64) though what that testing consisted of is not reported. The poor reporting of their research methodology in the article has not prevented the results being widely cited in finance literature (Google Scholar reported citations: 98).

Nagy and Obenberger assessed the frequency that participants cited variables as important to their investment decisions and then conducted a factor analysis using varimax orthogonal rotation. This approach is good in terms of the clarity of the output data but assumes the factors are unrelated which may not necessarily be the case in this context. Why they did not use rating scales is not made clear in the article. I have adapted their results and present them as table 8 on the next page.

In table 8 on the next page the variables and frequency scores are presented on the left and the factors are presented from left to right based on the order of the factors as reported in the Nagy and Obenberger table of the factor analysis results (Nagy and Obenberger, 1994, p.67).

Table 8

Items and Factors of Variables Influencing Individual Investor Decisions

	Item	Frequency Per cent	Self-Image/Firm-Image Coincidence 34.40	Personal Financial Needs 31.83	Accounting Information 28.75	Classic 25.55	Neutral Information 10.73	Advocate Recommendation 9.03	Social Relevance 3.77
1	Expected Corporate Earnings	46.6			Expected Corporate Earnings				
2	Diversification Needs	43.6		Diversification Needs					
3	Feelings for Firm's Products and Services	40.6	Feelings for Firm's Products and Services						
4	Condition of Financial Statements	39.1			Condition of Financial Statements				
5	Firm Status in Industry	36.8	Firm Status in Industry						
6	Reputation of Firm	36.1	Reputation of Firm						
7	Past Performance of Stock	34.6							
8	Attractiveness of Non-Stock Investments	33.1							
9	Minimizing Risk	32.3				Minimizing Risk			
10	Time Before Funds are Needed	29.3		Time before Funds are needed					
11	Tax Consequences	29.3				Tax Consequences			
12	Expected Stock Market Performance	28.6							
13	Gut Feeling on Economy	27.1							
14	Perceived Ethics of Firm	24.1	Perceived Ethics of Firm						
15	Expected Dividend	23.3				Expected Dividend			
16	Competing Financial Needs	22.6		Competing Financial Needs					
17	Past Performance of Investor's Stock Portf	19.5							
18	Affordable Share ice	17.3				Affordable Share Price			
19	Data in Reports & Prospectuses	15			Data in Reports & Prospectuses				
20	Current Economic Indicators	14.3							
21	Use of Valuation Equations	14.3			Use of Valuation Equations				
22	Stock Broker Recommendations	14.3						Stock Broker Recommendations	
23	Investment Advisory Service Recommenda	14.3					Investment Advisory Service Recommendation		
24	Institutional Holdings	11.3							
25	Recent Price Movements	11.3					Recent Price Movements		
26	Coverage in Financial press	11.3					Coverage in Financial press		
27	Brokerage House Recommendations	9.8						Brokerage House Recommendation	
28	Family Member Opinions	6.8							
29	Coverage in General Press	6					Coverage in General Press		
30	Exchange listing	5.3							
31	Local Operations	4.5							Local Operations
32	Environmental Record	4.5							Environmental Record
33	Friend or Co-worker Recommendation	3						Friend or Co-worker Recommendation	
34	International Operations	2.3							International Operations

Source : Adapted from data provided by Nagy and Obenberger (1994)

2.5.3.5 Conclusions from the Research on Individual Investor Decision-making

Nagy and Obenberger found that investment advisory service recommendations (distinct from stock broker recommendations), recent price movements, coverage in the financial press and coverage in the general press hang together as a factor. One possible explanation for this could be that in the absence of direct experience of management these information sources are related because they are in some way the proxies favoured by individual investors when evaluating management quality. For example, a well performing share price might be read by individuals as a signal that a company is well managed.

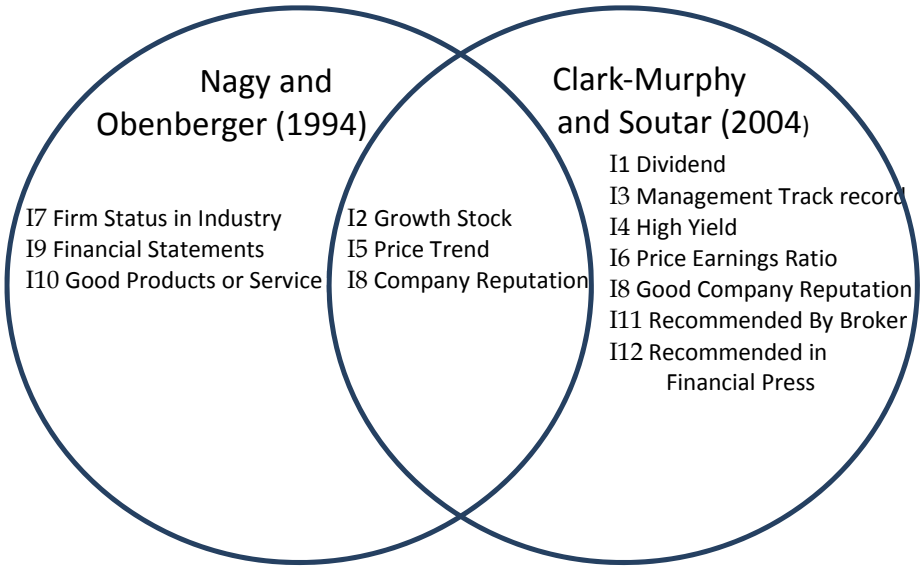
Clark-Murphy and Soutar found that individual investors attached high value to the share price trend and market status of a company (see Figure 3 on page 68) and were surprised that according to their conjoint analysis these factors were ranked for usefulness by individuals above the stock recommendations of their brokers. Considering these results with those of the Nagy and Obenberger study (1994) it seems plausible that individuals might rely on proxy variables to substitute for the sources of information available to institutional investors.

This conclusion is bolstered by the fact that the quality of corporate strategy has not been found to be a company attribute considered important by individuals (Clark-Murphy and Soutar, 2004) or a variable that influences individual investment decisions (Nagy and Obenberger, 1994) though it has been found to be of vital importance to institutional investors (Barker, 1998; Barker et al., 2012; Hendry et al., 2006; Holland, 1998; Holland and Doran, 1998; Roberts et al., 2006). It may be the case that individual investors do not think they have the expertise to make good evaluative judgements about company strategy and choose instead to infer company prospects from past company performance. Individual investors may value the same attributes as institutional investors but base their evaluations on different data at least in part, due to information asymmetry.

It is noteworthy that of the variables identified in the research on individual investors only three constructs have been found to matter in both studies which can be seen in the Venn diagram presented In Figure 4 below. This could be because American individual investors and Australian individual investors are significantly different in how they make investment decisions. It is difficult to explain this difference based on the reported research since Nagy and Obenberger (1994) have poorly described how they determined their constructs and because Clark-Murphy and Soutar (2004) seem to have attached considerable importance when finalising their levels to input from securities research analysts which may have biased the levels towards the methods of evaluation used by analysts.

Figure 4

Venn Diagram Showing Difference and Similarities Between Preference Attribute Variables Identified in Literature on Individual Investor Decision-making



Source: Prepared for Inclusion in this Thesis

In Table 9 on the next page the company/management attributes of stocks found to be important to individual investor decision-making are consolidated and labelled. Variables from the Clark-Murphy and Soutar (2004) study have been chosen for inclusion from among the reported attribute levels based on whether they have a utility score (Table 7) above 55.25 (the midpoint in the range of reported utility scores). This threshold is based on the advice of Goffin, K., Lemke, F., and

Szwejczewski, M., (2006). For a construct from the Nagy and Obenberger (1994) study to qualify for inclusion in the consolidation table the frequency of the construct being reported by participants (Table 8) must be above the threshold of 25% meaning at least 35 out of the 137 individual investor participants in their study must have identified the construct as influencing their investment decisions. This threshold too is based on the advice of Goffin, K., Lemke, F., and Szwejczewski, M., (2006). Giving definitions to the attributes is difficult because the attributes are not clearly defined in the literature.

Table 9

Consolidated Table of Company/Management Attributes Identified in Research on Individual Investor Decision-Making

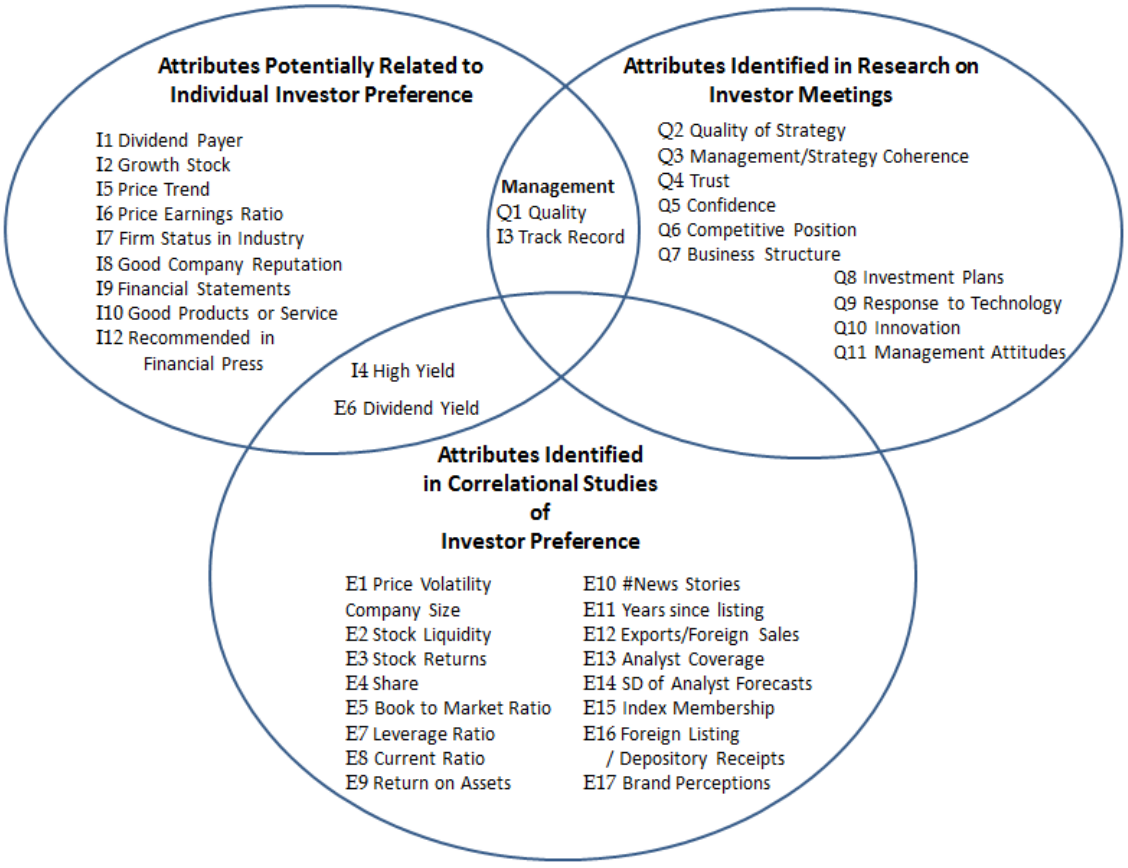
Label	Attribute	Definition	Reference
I1	Dividend	Pays Regular Dividend	Clark-Murphy and Souta, 2004.
I2	Growth Stock	Expectation that corporate earnings will grow well	Clark-Murphy and Souta, 2004; Nagy and Obenberger, 1994.
I3	Management Track Record	Management has a track record in this industry	Clark-Murphy and Souta, 2004.
I4	High Yield	Share dividends are paying a high yield	Clark-Murphy and Souta, 2004.
I5	Price Trend	The share price has been rising	Clark-Murphy and Souta, 2004; Nagy and Obenberger, 1994.
I6	Price Earnings Ratio	The Price earnings Ratio is average/low	Clark-Murphy and Souta, 2004.
I7	Firm Status in Industry	The company enjoys good status in its industry	Nagy and Obenberger, 1994.
I8	Company Reputation	The company has a good reputation (blue chip)	Clark-Murphy and Souta, 2004; Nagy and Obenberger, 1994.
I9	Financial Statements	Undefined in the literature	Nagy and Obenberger, 1994.
I10	Good Products or Services	The company has good products or services	Nagy and Obenberger, 1994.
I11	Recommended by Stock Broker	Shares are recommended as good investment by stock broker.	Clark-Murphy and Souta, 2004.
I12	Recommended in Financial Press	Shares are recommended as good investment in financial press.	Clark-Murphy and Souta, 2004.

2.5.4 Overall Conclusions from Literature

Despite the large number of studies concerned with investor preference and decision-making we cannot conclude from that research what it is about companies and their shares that matters most to investors. The overall picture is almost that of having three silos (see Figure 5 below). No construct has been found that is common across the three silos. Only one construct is shared by the research on individual investors and institutional investors and another different construct seems to be common to the results of the correlational studies and individual investor decision making research.

Figure 5

Venn Diagram of Preference Constructs Identified in Literature



Source: Prepared for Inclusion in this Thesis

The largest category in the literature is the correlational studies of investor preference but these only reveal relative preferences of institutional investors to individuals, they cannot distinguish "liked" attributes from "disliked less" attributes. Also, the context effect sensitivity of preference measured using aggregated share ownership data (revealed preference) means the effects of changing share price related valuation considerations on institutional investor decisions cannot be easily disentangled statistically or practically from the effects of preferences for stock/company or management attributes. It is noteworthy that the correlational studies on investor preference were not preceded by exploratory research on investor decision making. Instead the selection of financial attributes for testing was drawn from share and company accounting data based on normative models from finance or selected as non-financial attributes because they could be used as proxies for two constructs ("firm visibility" and "company prudential quality"). Several of the non-financial variables were used as proxies for both constructs.

Judging from the results of the research on investor meetings it might possibly be the case that the correlational studies have not after all identified any attributes that are among the most important to institutional investors. Good insights to attributes potentially important to institutional investor preferences come from the qualitative research on investor meetings. These meetings have been found to be perceived by institutional investors as their most important sources of investment information. However in this literature the identification of indirectly financial variables as potentially important antecedents of institutional investor preference was incidental to those studies. The studies were mostly concerned with exploring the conduct and content of the meetings so drawing conclusions from questions asked in meetings about the construct being evaluated by the questioning seems an inherently unreliable method for identifying constructs. This is because unless the construct is itself surfaced in the research the method requires the researcher to try and read the minds of the investors. From the investor meetings research it is possible to prepare a list of some high level constructs and some variables that may contribute to investor evaluations of those constructs but we

do not know from the literature why the variables are important, how relatively important they are so which variables are most important, or how the variables could be best defined.

From the research on individual investors we know that management quality is for them, as it is for institutional investors based on the investor meetings research, an attribute that matters when making investment decisions. However, whether management quality means the same thing to individual investors as it does to institutional investors cannot be assessed from the extant literature. Also, why this should be the only construct common to both institutional investors and individual investors is a mystery. It may be the case that differences between the attributes found in the research on investor meetings and the attributes found in the research on individual investors are explainable by differences in their relative levels of expertise. Consistent with Alba and Hutchinson (1987) the attributes used for evaluation by institutional investors seem to generally exhibit a higher level of abstraction than those found to be important to individual investors who seem to weight more highly the attributes that are easily understood (Gardener, 1983). However, too much should not be read into this because the differences in research methodologies and shortcomings in reporting make like with like comparison unreliable.

It is also possible that the attributes most important to institutional investors are similar to, or closely related to, the attributes most important to individual investors but individuals have different methods of evaluating attributes because of information asymmetry. Because good definitions of constructs are lacking from the literature on individual investor research we cannot draw reliable conclusions about possible relationships between variables across studies. For example it is not clear from the Nagy and Obenberger (1994) study how and why “Financial Statements” (Attribute I9) are used by individual investors. It is not likely that simply producing a set of financial statements is an attribute of high importance to individual investors when they choose between alternative companies as an investment so what then is the attribute being evaluated from financial statements?

2.6 Research Questions

In the preceding sections the literature concerning preference theory and research related to investor preference have been reviewed and discussed.

Based on this review of the literature it is clear that although considerable research has already been undertaken we still do not know because of the constraints of the dominant methodology (i.e. correlational studies) what attributes of companies and their stocks are most important to investors. Evidence that the methodological constraint exists is provided by the literature on investor meetings and individual investor decision-making because that literature identified mostly constructs not captured in the correlational studies. We also do not know whether the same attributes that are important to individual investors are also important to institutional investors. Further research is needed to explore investment decision-making with a focus on the attributes that are important to investors when they make their decisions. As such, this study endeavours to close this gap by answering the research question:

1) What attributes of a company's shares are important to investors when deciding their investment preferences?

More specifically, this research study seeks to identify similarities and differences between institutional and individual investors by answering two sub questions:

2) What attributes of a company's shares are important to institutional investors when deciding their investment preferences?
3) What attributes of a company's shares are important to individual investors when deciding their investment preferences?

Chapter Thee: Methodology

3.1 Introduction

The previous chapter concluded by posing the main research question and two sub-research questions. In this chapter I detail the methodology that has been employed to address these research questions.

3.2 Research Methodology

This is an exploratory study of investor preference and the methodology employed is Repertory Grid Analysis (RGA) because the method provides a means for not only identifying constructs important to investors but also having each construct and the reasons for its importance explained in each investor's own words.

Repertory grid analysis (RGA) is a technique proposed by Kelly (1955) for identifying the repertoire of constructs an individual has in their personal construct system. According to Kelly's personal construct theory (PCT), individual goals, evaluative judgements and future expectations result from personal "construing" which occurs as people continually interpret and reinterpret their environment. Kelly employed the metaphor of each person as their own scientist to illustrate his theory that each individual strives to make sense of their environment by developing their own personal construct system which is a network of hypotheses about how the world works (Fransella, Bell and Bannister, 2004). Kelly's personal construct theory is elaborated by a string of eleven corollaries (Kelly, 2003) as follows:

Construction Corollary	The anticipation of events by a person is determined by that person construing their replications by devising some construction based on perceived similarities with events in the past;
Individuality Corollary	The constructions of events differ from person to person;

Organisation Corollary	A person's construction system embraces ordinal relationships between constructs which characteristically evolve for use when in anticipating events;
Dichotomy Corollary	Each person's construct system consists of a finite number of dichotomous constructs;
Choice Corollary	Each person chooses for themselves that alternative in a dichotomized construct that they anticipate provides the greater possibility for the elaboration of their own construct system;
Range Corollary	Not everything that happens around us is projectable upon all dichotomies of a person's construct system so each construct will be convenient for the anticipation of only a finite range of events;
Experience Corollary	The successive construing of the replications of ascribed aspects of events causes a person's construct system to vary and evolve over time;
Modulation Corollary	The variation in a person's construct system is limited by the capacity of the constructs in the system to accept new subordinate constructions and be used as a referent for novel events;
Fragmentation Corollary	A variety of construction subsystems may be successively employed by a person despite them being inferentially incompatible with each other;
Commonality Corollary	Though two people may have experienced different events and gone through different experiential cycles they may end up with similar constructions of their experiences;
Sociality Corollary	A person can construe the construction processes of another person and play a role in social processes involving that other person.

Construing can thus be seen as the process of finding differences and similarities between things in order to give meaning to them within a personal construct system (Eden and Jones, 1984). According to Kelly's theory investor behaviour should always be guided by each individuals personal construct system. Each investor's personal construct system will have evolved through repeated reinterpretations of their world to be relevant personally to them. According to the theory each investor will use their construct systems to anticipate investing events and for determining their future courses of action which are subject to individual modification in the light of their personal experiences (Slater, 1969).

Repertory Grid Analysis (RGA) technique was developed by Kelly as a means for exploring the constructs in an individual's personal construct system. Kelly's grids are two-dimensional arrays in which each cell in the grid contains elicited information about the objects that are being investigated (i.e. elements) in relation to a personal construct. The RGA technique, elements and constructs are explained in more detail later in this section when I discuss how Kelly's technique was operationalised for this research.

The repertory grid analysis (RGA) technique enables researchers to see the world through the eyes of the person participating in the study, which in this case means seeing companies as preference objects through the eyes of investors. RGA is a well-established research technique and though developed for use in clinical psychology it has been used to identify personal constructs of consumers and shown to be a reliable instrument for exploring the cognitive complexity of consumer behaviour (Zinkhan and Barunsberger, 2004). For example, the technique has been used to investigate perceptions of consumer brands (Henderson, Iacobucci, and Calder, 2002), customer experience (Lemke, Clark, and Wilson, 2011), tourist destinations (Pike, 2003; Pike, 2007), and store image (Buttle, 1985). Researchers have found that using the repertory grid technique provides a greater depth of construct elicitation than can be achieved from using direct semi-structured interview questioning on its own (Lemke, Keith, and Szwejczewski, 2003) and is a powerful tool for probing the interviewees

understanding of complex topics by pushing them beyond jargon and encouraging the articulation of complex issues (Goffin, K., Lemke, F., and Szwejczewski, M., 2006).

The technique has not been used before to explore investor behaviour but the topic is well suited for study using RGA because the method provides the means for eliciting from investors the constructs that are important to them personally when making their judgements in this complex human activity. Also using RGA style structured interviews means the similarities and differences between participants can be explored starting from their personal definitions of the constructs that are important to them. Obtaining these personal definitions and identifying commonalities between participants using RGA is valuable because the constructs identified as potentially important to investors in the investor meetings and individual investor decision-making literature were not well defined so they provide a poor external reference on definitions of the constructs potentially important to investor preferences.

There are advantages from using RGA rather than focus groups which was also considered as a possible methodology. The first concerns the practicality of trying to coordinate with busy fund managers a time and location outside their offices that would be suitable to participants and this may have discouraged their participation. The second concerns uncertainty about the quality of the data that would have been gathered from focus groups in cases where some fund managers may have been reluctant to talk freely about their investment decision-making when in the company of peers and competitors at focus groups.

3.3 Sampling

Sampling is the process of using a subset to estimate some unknown characteristics of a population (Zikmund, Babin, Carr, and Griffin, 2010). The population in this study are Australian investors in the shares of companies listed on the stock exchange.

This study has two sampling frames. One sampling frame, called institutional investors, includes the professional employees of financial institutions (i.e. investment banks and fund management

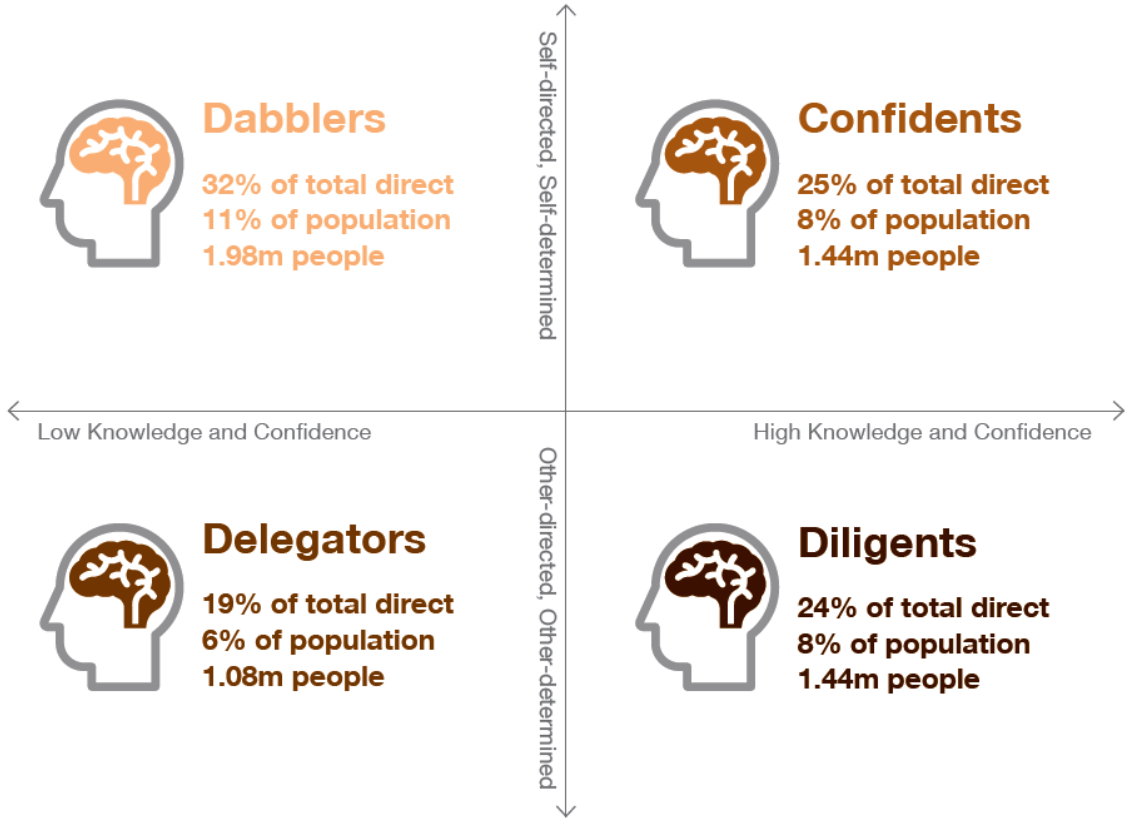
companies) who make investment decisions concerning the sales and purchase of shares for funds or high net worth private clients or who contribute to these decisions by making recommendations on share investments for funds. In 2010 Australian institutional investors were estimated by the Reserve Bank of Australia to own approximately half of the total shares outstanding on the Australian Stock Exchange (Black and Kirkwood, 2010). Their share of total ownership will have increased since then as the ASX has reported a steady decline in the value of stocks owned by individuals since 2008 (Australian Stock Exchange, 2015).

The other sampling frame, called individual investors, is people who are active in the direct investment of their own money in the shares of stock exchange listed companies. This is a subgroup of the total population of direct share investors as will be explained now. According to research conducted by the Australian Securities Exchange (ASX) between September and November, 2014, 4.68 million Australians, 26% of the adult population, invested directly in shares (Australian Securities Exchange, 2015). The age profile of share market investors based on that research showed that 62% of investors were over the age of 45 and the breakdown by gender of all direct share investors was 57% male and 43% female. The ASX research breaks the population of Australian direct investors into four segments based on knowledge and engagement with the investing process as shown in Figure 6 over the page.

To gather the rich data needed for this study all of the individual investor participants in the study had to be active direct investors who tend to look to themselves when making investment decisions rather than rely mostly on outside sources. These characteristics are consistent with the "Confidents" segment of the ASX segmentation classifications.

Figure 6:

Segmentation of Direct Share Investors



Source: Australian Stock Exchange (2015)

The sample for this research consisted of a total of 40 participants divided evenly between individual investors and institutional investors. The sample size matched that used by Lemke, Clark and Wilson (2011) whose methodologies this study follows closely. These researchers studied customer experience dividing their sample (n=40) evenly into B2B and B2C participants. Earlier researchers have shown that no new constructs are elicited from participants after 20 to 40 interviews have been conducted (Frost and Braine, 1967; Buttle, 1985). The sampling approach employed in this research combined purposeful and snowball sampling.

Purposeful sampling is non-probabilistic sampling where the sample is selected to provide information-rich cases so that the researcher "can learn a great deal about issues of central importance to the purpose of the study" (Patton, 2002, p. 230).

At the first stage of individual investor recruitment contact was made with potential participants outside of the venues for company annual general meetings (AGMs). Individuals entering the venues were asked whether they were attending the AGM and whether they considered themselves to be active investors. A copy of the participant information sheet (see Appendix A) was offered to any individual who answered in the affirmative to both questions. Of the more than 100 individuals who accepted the participant information sheet nine individuals subsequently contacted the researcher by the email address on the sheet and six of these agreed to be interviewed. Many recipients of the participant information sheet approached the researcher after the AGM and said that they did not feel sufficiently knowledgeable about investing to justify their participation in the research. The Australian Stock Exchange did not disclose in their report on Australian shareholders how they determined the categorisation of "confidents" but because investors frequently declined to participate in this study citing their perceived lack of knowledge about investing means the approach to investors worked as a self-selecting mechanism for finding the "confidents" sample for this study.

Snowballing, sometimes also called chain sampling, is an approach by which a researcher can use the personal knowledge of information-rich participants about other individuals to identify potential participants who are recommended as valuable key informants for a study (Patton, 2002). In this research snowballing became an important technique for recruiting participants because most attendees approached outside company AGMs evinced a reluctance to participate often citing their lack of investment knowledge as the reason. Using snowballing fourteen individual investors were recruited for the study. All six attendees of the company AGMs who agreed to participate in this study were members of either the Australian Shareholders Association (n=4) or the Australian Investors Association (n=2) and contacts were subsequently made through the events of those associations which proved to be good sources for recruiting information-rich individual investor participants.

Purposeful sampling with snowballing was also employed for the recruitment of institutional investors to participate in this study. Potential participants were contacted from a data base of fund managers

and institutional equities research analysts that were built using publicly available information from three years of press coverage on investment related subjects in the "Australian" newspaper and the "Australian Financial Review". The newspapers were a good initial source of candidates for participation because journalists frequently quote fund managers and analysts when reporting on company news. This data base was augmented by information from Linked In, the social media website. Through the site it was possible to follow the "People also Viewed" links to expand the data base. Also, fund management company websites were used to identify portfolio managers and analysts who worked for the fund management company.

Fund management analysts, often referred to as "buy side analysts," are part of the fund management team. They contribute to the investment decision making process for stock selection by doing the detailed analysis for the fund and are often treated within the fund management teams akin to junior portfolio managers so they were classified as institutional investors for the purpose of this study. The final data base had 222 names of potential participants (Sydney: 174; Melbourne: 32; Brisbane: 16) working for fund management companies (n=82) or investment banks (n=9).

Investment banks employ analysts, often referred to as "sell side analysts," to conduct research and make investment recommendations to their institutional investor clients. They are typically in daily contact with fund managers and their job requires them to employ the same kinds of research methodologies as fund managers when doing their analysis and making their recommendations because otherwise fund managers would not value their research and advice. These analysts therefore are expected to have investment preferences consistent with those of institutional investors who are their clients so the institutional research analysts who were interviewed (n=3) were also considered institutional investors for the purpose of this study. Investment banks also typically employ Private Client Portfolio Advisers who act like fund managers by making investment decisions to buy and sell stock for the accounts of high net worth customers of investment banks. This category of participant was therefore expected to have investment preferences consistent with those of

institutional investors so the one Private Client Portfolio Adviser who was interviewed was considered an institutional investor for the purpose of this study. There were no major differences noticed between the kinds of interview responses and construct explanations given by fund managers and those given by analysts and the private client portfolio adviser so including these two categories of participant in the study to ensure the sample was achieved is not believed to have been detrimental to accomplishing the studies goals.

The table on the next page (Table 10) shows the final makeup of the sample. All of the individual investors interviewed were over 45 which compares to 62% being over 45 in the study population according to the ASX data (Australian Securities Exchange, 2015). Seventy percent of the individual investors interviewed were male compared with 57% in the population (Australian Securities Exchange, 2015). The ASX study did not disclose a breakdown by age or sex in their segmentation of direct share investors by knowledge and confidence (Figure 6). It is possible that investors in the sample frame who are the "confidents" in Figure 6 are on average older than investors outside the frame because their knowledge and confidence as investors may have grown as a function of their longer history of investing. The difference between the sample and the population means the study findings are not generalizable. However, because the goal of the research was to identify attributes important to investment decision making having participants that make their own investment decisions rather than taking advice from family members or friends and can provide rich data was considered a primary concern so the impact of having investors older than to average for the population is not considered detrimental to achieving the goal of this study.

Table 10
Sample

Individual Investors

Age	Male		Female	
Over 45	14	(Ind. #20; Ind. #21;Ind. #23; Ind. #24; Ind.#25; Ind. # 26; Ind. #27; Ind.#28; Ind. #29; Ind. #31; Ind. #34; Ind. #35; Ind. #36; Ind. #38; Ind. #40)	6	(Ind. #22; Ind.#30; Ind. #32; Ind. #33; Ind. #37; Ind. #39)

Institutional Investors

Age	Fund Manager	Analyst		Private Client Portfolio Adviser
		For Fund	For Bank	
Under 35	(F.M.#2; F.M.#17)	(An. #18)	(An. #10; An. #13)	
35-44	(F.M.#5; F.M.# 7 F.M.#8; F.M.#11; F.M.#20)	(An.#14)	(An. #4)	
Over 45	(F.M.#1; F.M.#3; F.M.#6; F.M.#9; F.M.#12;F.M.#16)	(An. #15)		(P.C.P.A. #19)

Note: The identification of participants in the form (Description #) is included to help readers of this thesis who may wish to refer back from the study results to the sample data. "Ind." is an abbreviation of Individual investor. "F.M." is an abbreviation of Fund Manager. "An." is an abbreviation of analyst. P.C.P.A. is an abbreviation of Private Client Portfolio Advisor.

Comparing the sample of institutional investors to the population is difficult because there is no publicly available information concerning the demographics of the Australian institutional investment industry. Researchers comparing the investment styles of male and female fund managers in the U.S. mutual fund industry found that the share of female managed funds was low and constant at around 10% each year between 1994 and 2003 (Niessen and Ruenzi, 2007). There were 12 female potential participants in the data base of institutional investors (n=222) built for this study. All were approached but none of them agreed to be interviewed. There may be differences in the stock selection and decision-making processes between men and women fund managers. However, considering the extent to which institutional investing is a male dominated industry, as evidenced by the fact males made up 95% of the Australian institutional investor data base developed for this study, the

differences between the sample and the population of institutional investors is not considered detrimental to achieving the goal of this study.

3.4 RGA Technique

The RGA technique is able to bridge the gap between qualitative and quantitative methods of analysis by combining the elicitation of constructs using qualitative interview techniques with the evaluation of the scoring of all elements (i.e. 9 companies in the range from most liked to most disliked) on those constructs as a means of quantitatively evaluating the relative importance of the elicited constructs across the sample (Green, Wind and Jain, 1973). The identification of the important constructs to investor preference is the main goal of this research. In this study the RGA was undertaken according to the steps below which have been adapted from Marsden and Littler (2000a):

(1) element selection;

(2) construct elicitation;

(3) element comparisons; and

(4) data analysis.

3.4.1 Element Selection

Elements are the objects that are being investigated. Kelly's "prime rule of grid construction" is that all elements must be within each participant's range of convenience which comprises those things for which the individual finds the application of their constructs to be useful (Fransella, Bell and Bannister, 2004, p.9). Therefore the elements of this study were companies listed on stock exchanges that investors had knowledge about.

There are more than two thousand four hundred companies listed on the Australian stock exchange so if these nine companies had been preselected for consideration by the participants there would

have been a high risk that some participants had very little or no investment decision relevant knowledge about some or possibly all of the companies preselected. This would have been a particularly high risk of this with individual investors who are not employed full time like institutional investors to search across the whole market for investment opportunities.

The elements also need to be representative of the area being investigated (Fransella, Bell and Bannister, 2004) which for this study is investor preferences. Therefore the elements were elicited directly from each research participant by using questions to identify nine elements, three stocks for which the investor had a positive preference (i.e. "liked as an investment"), three a negative preference (i.e. "disliked as an investment") and three the participant neither particularly liked or particularly disliked (i.e. "neither particularly likely or disliked as an investment"). The decision to use nine elements in the repertory grid was guided by the methodologies of Lemke et al., (2011) and Goffin et al., (2006). They in turn had been guided in their choice of nine by Tindall (1994) who "regarded more than ten elements as unmanageable" (Lemke et al., 2011, p.852).

Selecting three elements each for positive preference, negative preference and three that were neither liked or disliked meant that the elements in each participant's grid were representative of companies across a range from liked to disliked and therefore representative of the area being investigated (Fransella, Bell and Bannister, 2004). This selection criteria was consistent with the methodology of Lemke et al., (2011) and Goffin et al., (2006). In the RGA study of customer experience quality conducted by Lemke et al., the participants selected three companies with whom they had a "good experience", three companies a "poor experience" and three an "average experience". In the Goffin et al., study of supplier relationships the elements were selected by asking participants to name three suppliers with whom the participants work in "close" relationships, three "distant" and three "average". This study was concerned with exploring investor preferences not investor experience quality or investor relationships and the modification of the element elicitation methods of Lemke et

al., (2011) and Goffin et al., (2006) to elicit elements within a range from positive to negative preference was appropriate.

3.4.2 Construct Elicitation

The second stage of RGA in the study was conducted in the same personal interviews with participants and involved eliciting their investment preference constructs and exploring the meaning of each construct. Prior to commencing the interviews each participant was told that the interview questions were not a test and that there could be no wrong answers. The interview procedure was explained and to illustrate the procedure the interviewer gave a demonstration of the interview technique using a fictional study of consumer behaviour concerning fruit purchase preferences as the example.

This research employed the triading methodology of Kelly (1955) for eliciting constructs. Kelly defines a construct as: "a way in which some things are construed as being alike and yet different from others" (Kelly, 1955, (c1991, p.74)). The nine elements were presented in multiple combination sets of three cards (triads). Participants were asked: "When thinking of stocks as investments, in what important way are two of these stocks alike, and different from the third?"

Instead of presenting all 84 possible triad combinations the number presented was based on a reduced inventory of 24 triads according to the balanced incomplete block design of Burton and Nerlove (1976). Using this method the order of presentation (Pike, 2012) was as follows:

1,2,3	4,5,6	7,8,9	1,4,7	2,5,8	3,6,9	1,5,9	2,6,7	3,4,8,	1,6,8	2,4,9	3,5,7
3,4,5	6,7,8	9,1,2	3,6,9	4,7,1	5,8,2	3,7,2	4,8,9	5,6,1	3,8,1	4,6,2	5,7,9

Using the Burton and Nerlove (1976) design meant that if the full 24 triads were presented then each element would have been shown eight times and each pair of elements twice. No participant was

presented with the full set of 24 triads because each interview followed the "no repeat" rule, meaning that once a construct had been elicited the same construct could not be used again for a different triad (Frost and Braine, 1967). By not allowing participants to repeat constructs each new triad elicits a new construct and the participants are stimulated to think more and think more deeply as the interview progresses (Goffin et al., 2006). The process can uncover constructs that prior to the interview the participant may not have been consciously aware of (Lemke et al., 2011).

In all interview cases the point at which the interviewee's repertoire of constructs was exhausted occurred prior to completion of the full set of 24 triads. When a participant said they could not identify any similarities/differences within a new triad three further triads were attempted. The fact that participants exhausted their repertoire before completing all triads in the series is not believed to be a problem because studies have found that when the "no repeat" rule is used only around eight to twelve triads are required before data redundancy is reached (Pike, 2012). Despite the truncation of the triad presentation series because the point of repertoire exhaustion was reached the order of the presentation of triads still accorded with the principle that the combinations should bring out the greatest contrast in the elements available while giving each element a roughly equal chance of appearing in triads (Easterby-Smith, 1980).

When each construct was elicited the interviewer asked the participant open ended questions about the meaning of the construct for them and why the construct matters to them when making investment decisions. The open ended questioning was important to achieve mutual understanding of the constructs because frequently participants used different terminologies to label constructs that, when their meanings were compared later, were revealed as essentially the same construct as elicited from one or more other participants. Because the elements (i.e. the stocks) and the constructs (i.e. the attributes of the stocks) are generated by the participant themselves the meanings can be understood in a relatively unbiased way (Goffin et al., 2006). However, the labels elicited for the same construct were found in this study to often differ significantly .

Asking "Why is (the construct) important to you as an investor?" was a valuable way of exploring how the construct was associated by the participant with the other elicited constructs and with preference. This technique often referred to as laddering in the literature, exposes associative networks and helps to understand the nature of the combinations of constructs used to distinguish between different products in the same category (Reynolds & Gutman, 1988), which in this case is stocks. An example is outlined in Figure 7 over the page.

Figure 7

Laddering Example Using Investor Preference

In the example above the investor, a fund manager, preferred companies with the attribute "good balance sheet" (defined by the fund manager as meaning a company with a low level of indebtedness) because it meant those company usually did not face a high level of uncertainty concerning the financing of their business going forward. Less uncertainty about financing was important to the investor because it meant the company's future earnings were more predictable and "good predictability" about future earnings was an attribute that was important to the fund manager when making his investment decisions.

Frequently constructs elicited from institutional investors early in the interview process were super-ordinate constructs meaning that they existed at a higher level of abstraction then specific attributes evaluated by participants and used to imply the position of a stock on the construct (Hinkle,1965 in Fransella et al., 2004, p. 39). For example the construct "High quality management" was found to be

evaluated by investors based on judgements they made on constructs such as “achieves objectives,” “meets expectations” and “good management experience in the industry.” By questioning participants on the meaning of the construct the super ordinate-subordinate relationships were able to be explored and the number of constructs elicited from a single triad was increased. This process is referred to in the literature on repertory grid analysis as pyramiding or sometimes as downward laddering (Jankowicz, 2004). This is a procedure recommended by Marsden and Littler (2000b) to make the participants’ interview responses more precise and generate more concrete constructs (Marsden and Littler, 2000b). In this thesis the goal was eliciting the constructs important to investor preference and their meaning so laddering was not done beyond revealing the reason a construct was important.

Some scholars have questioned whether Kelly’s (1955) ascription of a dichotomous quality to all human thinking adequately captures the complexity of personal construct formation (e.g. Bonarius, 1984; Riemann, 1990). However, thinking of constructs as bi-polar is believed to be more useful and research on personal construct theory relies heavily on the postulate that constructs are dichotomous (Fransella, et al., 2004). Consequently, and in accordance with the methodology of Lemke et al., (2011), participants were asked what they felt to be the opposite of the construct they had just mentioned. The interviewer next wrote the construct consisting of a “construct pole” and its opposite, called the “contrast pole” on a repertory grid sheet, illustrated in Table 9. In the example shown in Table 9 the participant’s first construct pole on the top row of the grid was “Like the Sector” and the contrast pole was “Do not Like the Sector”.

3.4.3 Element Comparison

In the element comparison stage of the RGA technique each participant completed a repertory grid questionnaire (please see the example in Appendix B) so that the structural relationships between their set of elements and their bipolar constructs could be examined (Fransella et al., 2004). This was a very important stage because the data produced enabled the comparison of constructs based on

the spread of participant ratings of elements on the construct which indicated the extent to which a construct was a stronger or weaker differentiator between the companies in the investors' grid then another construct. There is no inherent meaning in the ratings themselves, instead they provide a way for the participant to position the elements in relative terms and thereby give a richer picture to the researcher of the structure of each participant's construct system (Marsden and Littler, 2000a).

After each construct pole and contrast pole had been written by the interviewer on the repertory grid sheet each participant was asked to rate all nine elements (i.e. stocks) on this construct using a 5-point Likert scale (Fransella et al., 2004; Lemke et al., 2011). In the example (Appendix B) the participant rated all nine stocks on a scale of 1 to 5, where 1 represented a strong liking for the sector and 5 a strong disliking for the sector, completing scores in every row across the grid. The process of element comparison followed construct elicitation and poles identification until the participant had exhausted their repertoire of constructs. In the case of the example this was when 11 constructs had been elicited and the 9 x11 grid was completed.

3.5 Data Analysis

The method of data analysis, like the interviews and element comparisons, is based on the procedures of Lemke et al., (2011) and Goffin et al., (2006).

3.5.1 Collation of the Common Constructs

The interviews were recorded to ensure the participants' own explanations of each construct were accurately captured (Charmaz, 1995). The recordings were transcribed into Microsoft Excel 2010 to create virtual cards in the form of cells in Microsoft Excel 2010 spreadsheets. The grids were also reproduced in Microsoft Excel 2010. Many constructs appeared in more than one interview. Some constructs had been given different names by participants though the definitions were nearly identical. For example: "earnings growth" and "profit growth" or "a company I trust" and "trustworthy". The transcripts and the grids were examined by the researcher to identify these

repetitions and define standardized construct names for identically defined constructs. When a construct label chosen by a participant did not seem to fit well with the meaning for the construct given by the participant the interviewer asked the participant if they wanted to change the construct label before it was written on the RGA grid based on their definition of what they meant by the construct. Often the participant did change the label for their construct but in some cases they chose not to change the label, saying for example: "I think that's close enough" or "no, that will do." The choice of the labelling of constructs by participants did not effect the analysis of the data because constructs were compared based on the meanings given by each participant not simply on their labels.

Because there was no useful external category structure that could be applied the method of collation used was based only on comparing the meanings of constructs. Virtual cards were made of worksheet cells in Microsoft Excel 10. Each virtual card had the construct label elicited from the participant, the meaning of the construct and why the construct mattered to the participant taken from the interview transcription. Starting with the first two participants the virtual cards were copied and pasted into groups of similar meaning constructs in a separate worksheet. Constructs that were not common to both participants were kept separate from the groups on the worksheet. When each additional participant's virtual cards were considered, starting with the first construct and working down, the virtual cards were compared with the construct groups first to see if they shared the same meaning as any of the earlier identified construct groups. If the meaning on the new participant's virtual card was the same as the meaning of an existing group the card was added to the group. Next the meaning on the virtual card was compared to previously collated constructs that had not been classified to a group to see if any new groups could be formed. If a new group could be formed from the new card and an old card it was. If a new card had a meaning that was different to both the existing groups and the constructs of previously ungrouped cards it was added with the ungrouped cards. This process was conducted first for the twenty individual investors and then separately for the 20 institutional investors. The resulting construct groups and the ungrouped constructs were finally compared between the two participant categories to arrive at the full set of collated constructs which can be

found in Appendix C. Because constructs were compared based on their meanings not their labels where similarities between the label of a construct out of groups with the label of a group construct can be seen in the full construct list in Appendix C the reason for excluding the construct from a group is because the meaning given by the participant was different to the definition based on common meanings of the constructs in groups.

This process reduced the total number of constructs ellicited from 217 to 96 accoss the 20 individual investor grids and 290 to 140 accoss the 20 institutional investor grids. Across all 40 grids the process reduced the number of constructs from 507 to 212. The construct labels for the common constructs were based where possible on the labels given for constructs by the participants themselves.

3.5.2 Identification of Key Constructs

Guided by the methodology of Lemke et al., (2011) and Goffin et al., (2006) key constructs were identified based on the combination of the construct frequency and the strength of the construct as a differentiator of companies that are "liked as investments" from companies that are "disliked as investments". Goffin et al., observed that frequency count necessary to identify important constructs is "left open for interpretation" in repertory grid literature (Gogffin et al., 2006, p.200). They decided that a construct mentioned by 25% or more of participants carried more importance in explaining the supplier relationships they were exploring than less frequently mentioned constructs. Lemke et al., used the same 25% threshold because their methodology was guided by Goffin et al.,(2006). In this study, guided by the Lemke et al., (2011) and Goffin et al., (2006) the 25% threshold was also applied as one step for identifying the key constructs of investor preference, that is to be considered a construct that is important to investor preference one characteristic was that it had to be mentioned by at least 10 of the 40 participants.

A high frequency construct may not necessarily be a construct that is a good differentiator between the companies investors like and companies investors dislike. A high frequency construct could just

mean that the construct is easily accessible to investors, possibly because it is in some way obvious or maybe because it is a hygiene factor. Constructs that are poorer differentiators would have a narrower spread of ratings on average across the grids than constructs which are better differentiators. Based on this assumption Lemke et al., (2011) and Goffin et al., (2006) set a threshold for a key construct in their research that it should be a better than average differentiator between elements compared to other constructs across all grids. Lemke et al., measured spreads by calculating the ratings variability for each construct across every grid using the FlexiGrid 6 software package. Guided by this principle and because there was no access to the FlexiGrid 6 software the elicited grids of this research were copied into Microsoft Excel 10 and the variance of each construct on each grid was measured using the VARP formula.

The VARP formula (syntax VARP (number 1, [number 2],…)) measures the variance in an array (in this case ratings of companies on a construct by a participant) based on an entire population of that array (in this case for all nine elements, i.e. companies). The equation for VARP is:

$$\frac{\sum(x-\bar{x})^2}{n} \quad (3)$$

where X is the sample mean Average (number 1, number 2,…) and n is the sample size.

The number of constructs elicited from participants differed between people and was significantly different between institutional investors and individual investors. The average number of constructs elicited from institutional investors was 14.5 compared with 10.8 for individuals. When considering the differentiating strength of a construct based on that construct's variability across many grids the differences in the number of constructs in different participant's grids has to a be taken into account (Lemke et al., 2011; Goffin et al., 2006). This is because the importance of a construct as a differentiator of elements may differ between people not just evidenced by different spreads in the ratings but also based on how many constructs in total each uses when making judgements about the

elements. I will use an example to illustrate the logic behind this. Assume one investor makes judgements about stocks using in total 20 accessible attributes (i.e. the constructs elicited from the RGA). Assume another investor uses just 5 attributes when making judgements about stocks. If they have one construct in common then, assuming the spread of ratings on that construct is the same for both participants, the construct that is just one of five will be a more important differentiator for that investor then the construct that is one of twenty for the other investor. To make better quality like-with-like comparisons between constructs across the full sample the variability of constructs in each grid need to be normalized. Lemke et al., (2011) and Goffin et al., (2006) did this by multiplying their measure of variability for each construct in a particular grid by the number of constructs in that individual grid divided by the average number of constructs across all participants. In this study the same methodology for normalizing constructs was applied.

Finally, constructs identified as possibly important for investor preference based on the frequency of them in grids were compared on their strength as differentiators by comparing the average of the normalized variance of the construct across the grids where it had been elicited. Guided by the threshold for a key construct recommended by Lemke et al., (2011) and Goffin et al., (2006) to qualify as a key construct in this study the construct had to have average normalised variance (ANVarp) that was above the average normalised variance of all constructs across all grids. The results of the research will be discussed in the next section.

Chapter Four: Results and Discussion

4.1 Results

Individual investors were interviewed between February and March 2014 in Brisbane (n=18) and the Gold Coast (n=2). Institutional investors were interviewed between May and September 2015 in Sydney (n=12), Melbourne (n=6) and Brisbane (n=2). A total of 507 constructs were elicited from participants the summary data is presented in Table 11.

Table 11

Summary Data from Empirical Study of the Attributes of Investor Preference

Description	Individual Investors	Institutional Investors	Total Participants
Participants	20	20	40
Total Attributes in Grids	217	290	507
Average Number of Attributes per Participant	10.85	14.50	12.68
Identified Constructs	83	124	179
Average Normalised Variability	30.55%	29.87%	30.21%

Source: Prepared from thesis research data

There is no categorisation of constructs put forward in literature on investor preference. The financial, indirectly financial and non-financial categories used in the literature review for the purpose of taxonomy of the variables researched in extant literature could not be usefully applied to aide collation of the constructs elicited in this study. The constructs elicited from individual investor participants and institutional investor participants were mostly non-financial variables.

The data on the constructs elicited from participants as empirical evidence for the attributes of investor preference are summarised in Table 12 over the page. Twenty four constructs were elicited from 5 or more participants and all of these are included in the table. Each construct (i.e. attribute) has a reference number, for example "E_5" denotes empirically derived attribute number 5, "Gearing". This is to help with clarity in the subsequent discussion of the research when comparisons are made between the attributes elicited by this empirical research and attributes from extant literature.

In Table 12 on the next page the important constructs of investor preference based on both the frequency thresholds and the average normalized variance thresholds are highlighted as Key Constructs ("Yes") in the fourth column. Where a construct was above the cut-off threshold for Frequency and, or Average Normalised Variability the data has been shaded in the table. Of the 24 constructs in the table six of them were mentioned by institutional investors but not mentioned at all by individual investors (E_{12}: Predictability, E_{18}: Pricing Power, E_{19}: Return on Invested Capital, E_{20}: Cash Flow, E_{21} : Market Share, E_{24} : Capital Allocation). Only one construct mentioned by individual investors was not mentioned by any institutional investor (E_{10}: Total Investor Return). Market Capitalisation (E_{23}), the equivalent of the Firm Size variable in the correlational studies literature, was mentioned by four institutional investors and recorded low Average Normalized Variability meaning it was not a good differentiator between companies. This result is consistent with the suggestion made in the literature review that company size may be qualifying criteria for institutional investing analogous to Herzberg's (1966) "hygiene factors".

Table 12

Empirical Evidence of the Attributes of Investor Preference

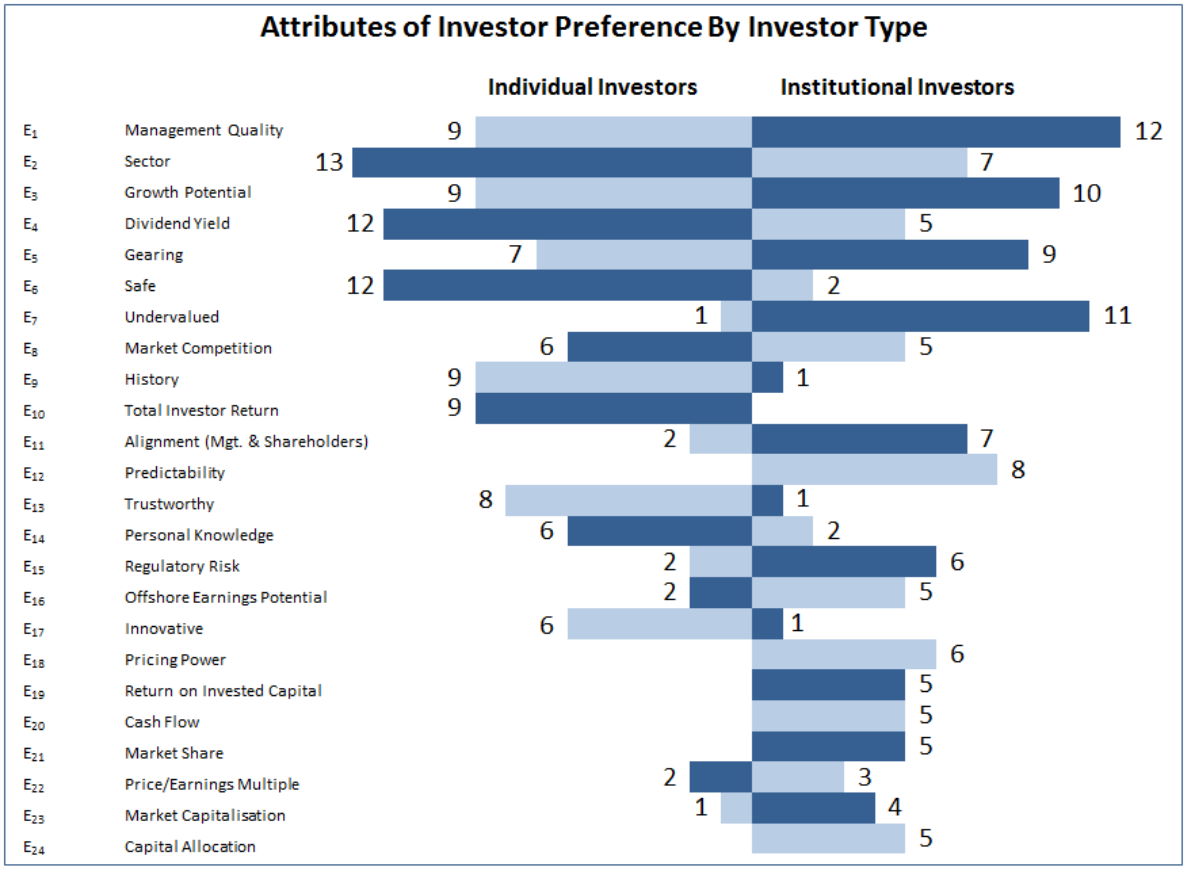
No.	Constructs	Frequency (% Respondents)	Average Normalised Variability (%)	Key Construct?
E_1	Management Quality	21 (52.5)	26.92	No
E_2	Sector	20 (50)	32.38	Yes
E_3	Growth Potential	19 (47.5)	31.23	Yes
E_4	Dividend Yield	17 (42.5)	32.14	Yes
E_5	Gearing	16 (40)	25.43	No
E_6	Safe	14 (35)	35.16	Yes
E_7	Undervalued	12 (30)	31.77	Yes
E_8	Market Competition	11 (27.5)	28.42	No
E_9	History	10 (25)	30.64	Yes
E_{10}	Total Investor Return	9 (22.5)	26.40	No
E_{11}	Alignment (Mgt. & S'holders)	9 (22.5)	16.37	No
E_{12}	Predictability	8 (20)	26.00	No
E_{13}	Trust	8 (20)	25.60	No
E_{14}	Personal Knowledge	8 (20)	30.85	No
E_{15}	Regulatory Risk	8 (20)	29.67	No
E_{16}	Offshore Earnings Potential	7 (18)	44.15	No
E_{17}	Innovative	7 (18)	24.97	No
E_{18}	Pricing Power	6 (15)	33.53	No
E_{19}	Return on Invested Capital	5 (12.5)	36.67	No
E_{20}	Cash Flow	5 (12.5)	32.65	No
E_{21}	Market Share	5 (12.5)	27.68	No
E_{22}	Price/Earnings Multiple	5 (12.5)	23.48	No
E_{23}	Market Capitalisation	5 (12.5)	22.26	No
E_{24}	Capital Allocation	5 (12.5)	21.50	No

Factors mentioned by 25% or more of respondents and constructs with an average normalized variance greater than the average for all constructs are highlighted (Goffin etal., 2006)

Table 13 over the page has a breakdown of the attributes into their frequency among individual investors and among institutional investors. That more groups might be formed by institutional investors than individual investors is not surprising when you consider that 33% more constructs were elicited from institutional investors (n=290) than individual investors (n=217).

What is interesting in the table is how rarely individual investors mentioned constructs that could be considered key to institutional investor preference (mentioned by at least 25% of institutional investors and above average ANVarp) and vice versa.

Table 13



What is interesting in the table is how rarely individual investors mentioned constructs that could be considered key to institutional investor preference (mentioned by at least 25% of institutional investors and above average ANVarp) and vice versa. The list of attributes that are important to investors when deciding their investment preferences (i.e. the answer to Research Question One) with definitions and example quotations from participants are reported in Table 14. The list of the attributes that are important to institutional investors when deciding their investment preferences (i.e. the answer to Research Question Two) with definitions and example quotations from participants are reported in Table 15. The list of attributes that are important to institutional investors when deciding their investment preferences (i.e. the answer to Research Question Three) with definitions and example quotations from participants are reported in Table 16. Similarities and differences between institutional investors are discussed in the next section.

Table 14
Key Investor Preference Constructs (in alphabetical order)

No.	Key Construct	Explanation	Example Quotes
E_4	Dividend Yield	*High Dividend Yield* (1) – The extent to which the investor perceives the value of the dividend paid by a company to be high in relationship to the company's share price. *No Dividends* (5) – The company pays no dividends.	"You prefer a higher (dividend) income because then it proves the sustainability of their cash flow." *(Fund manager (#17))* "The market can go up or down in the short term or even medium term and if a company pays dividends you are being paid while you wait for the share price to finally go up." (*Individual* (#33))
E_3	Growth Potential	*Good Growth potential* (1) – The extent to which the company is perceived to have good potential to grow its profits going forward. *Poor Growth Potential* (5) – The company is not perceived to have good potential to grow profits.	"I see long-term growth as the most reliable, kind of underpinning, reason for stocks going up." (*Individual* (#37)) "Ultimately earnings growth drives share price direction." *(Fund manager (#1))* "If I hold a growing company for a long period of time its share price will come to reflect the growth in earnings." *(Fund manager (#3))*
E_9	History	*Good History* (1) – The extent to which the company is perceived to have a good track record with regard to its financial performance and delivering returns to shareholders. *Bad History* (5) – The company is not perceived to have a good track record.	"I don't know the future no one does all we have to go on really is how they have done in the past and what that past means for the chance of doing well still." (*Individual* (#21)) "Nothing has gone wrong for the company over the years, slight blips but nothing major wrong." *(Individual* (#36)) "I look at what has happened but not too far back because most companies have gone through bad periods at some time." *(Individual* (#24))

E_2	Sector	*Good Sector* (1) – Good Sector is a subjective holistic evaluation that the outlook for the sector is positive based on judgements concerning a variety of attributes that can be used to discriminate between sectors. The attributes that are important to an investor in making their subjective evaluation may be different from sector to sector and weighted differently from investor to investor. Prominent in these attributes are things such as: A) Demand outlook, for example if there are favourable demographic factors positive for the sector; B) Sector output price prospects, for example if the current the economic cycle is favourable for future price increases; C) Structure of the sector, (i.e. fragmented versus consolidated); D) Positives or negatives for the sector stemming from technological or regulatory change; E) Are profit margins in the sector increasing, stable or contracting, for example due to the degree of intensity of competition in the sector? *Bad Sector* (5) – Bad Sector is a subjective holistic evaluation that the outlook for the sector is negative based on judgements concerning the same kinds of attributes listed under good sector above.	"It means in terms of the market, in terms of consumers, supply/demand change, in terms of regulatory change." (*Analyst* (#4)) "Power of suppliers, power of customers, concentration, the type of economic good they produce. (*Fund manager (#5))* "When the industry is in a state where they are building or the companies in the industry are all trying to build helped by good growing demand." (*Analyst* (#18)) "I think it's probably three things about the sector not one thing... it's low risk, it's growth and then also it's a good structure. The longer the time horizon the more important the industry is." *(Fund manager (#8))* "I equate it to an area where people are interested to put their money where there is growth in the sense of a need for a service or a product." (*Individual* (#35)) "Sectors follow trends you know, mining will be up for a while or tourism. Now tourism is up it will go well for a while." (*Individual* (#32)) "Some industries are harder for companies to make a profit like cyclical businesses when the sector is down. (*Individual* (#23))
E_7	Undervalued	*Undervalued* (1) – The extent to which the company is perceived by an investor to be trading at a price below what they believe to be its fair value.	"Ultimately the belief is that shares over the long run will trade towards their fair value over time so if we can buy them when they're below their fair value we

		make money." *(Fund manager (#1))*
	Overvalued (5) – The extent to which the company is perceived by an investor to be trading at a price above what they believe to be its fair value.	"There are obviously numerous ways in which people can perceive value and by intrinsic we are saying the most kind of fundamental value assessed on the most kind of fundamental basis. Which, essentially for us, is reference to the value of future earnings." *(Private Client portfolio Manager* (#6))
		"Value is not the P/E or price to book or anything like that it is the whole kit and kaboodle everything put together we consider all the possibilities in the spectrum then you say OK what are we happy to say this is a decent valuation for this company then you want your margin of safety and obviously consider a lot of things and that's your value. Cheap and expensive, value and nonvalue is to us the only thing that matters to us in the end." *(Fund manager (#8))*
		"Compared to previous years, compared to how it has traded historically, compared to what I think fair value is." (*Analyst* (#15))
		"I always look at this because I don't want to pay $1.20 for something worth $1." (*Individual* (#32))

Table 15
Key Investor Preference Constructs - Institutional Investors (in alphabetical order)

No.	Key Construct	Explanation	Example Quotes
E_{20}	Cash Flow	*Very Good Cash Flow* (1) – The extent to which the investor perceives the company generates a very high level of cash from operating their business. *Very Poor Cash Flow* (5) – The extent to which the investor perceives the company generates a very low cash flow from operating their business.	"Cash flow pays the bills if you don't have good consistent income of receipts then it is difficult to pay staff and creditors then, obviously, you have to go into debt." *(Fund manager (#17))* "Generating cash matters because it means dividend payouts can be higher, debt is more easily serviced and you have less concern about the risk of financial problems derailing prospects." *(Private client portfolio advisor* (#19))
E_4	Dividend Yield	*See Table 14*	
E_{19}	Return on Invested Capital	*High Return on Invested Capital* (1) – The extent to which the investor perceives the company is achieving a high return on the capital invested by management in their business. *Low Return on Capital* (5) – The investor perceives the company to be getting a low return on the capital invested by management in their business.	"We're always looking for companies that, because of their business model or their IP (intellectual property) or whatever the reason, they are able to earn a return that is probably in excess of the risk that is associated with it." *(Fund manager (#7))* "Incremental return on investment is probably central. The ability to earn economic rents on capital and the ability to deploy more capital and earn economic rents on that. So high return on investment and the ability to do that while investing a lot." *(Fund manager (#3))* "It has to be returns in totality; it really depends on the individual nature of the business to come up with a view." *(Fund manager (#12))*

			"A very low return on capital and before long your business will go broke." *(Fund manager (#14))*
E_{18}	Pricing Power	*Good Pricing Power* (1) – The extent to which the investor perceives the company as having good power to set and adjust prices to achieve the company's targeted margins. Sometimes referred to as being a "price maker". *Poor Pricing Power* (5) – The company is perceived to have very little power to set prices. Sometimes referred to as being a "price taker".	"An ability to pass through price increases which reflect costs and which reflect margins, alternately a competitive landscape which does not allow for price increments to be passed through, pricing power." *(Fund manager (#12))* "It is their ability to push up prices if they can which goes through to the bottom line and means they can grow their profit margins rather than the opposite which is they just take what is given." *(Private client portfolio advisor* (#19)) "By pricing power I mean that a company that has the ability to increase prices without completely destroying demand for its product so that they've got some opportunity to choose higher prices and lower volumes. Whereas a price taker they don't really have a choice." *(Fund manager (#3))*
E_{16}	Offshore Earnings Potential	*Good Offshore Earnings Potential* (1) – The extent to which the investor perceives the company has good potential to make profits based on selling products or services to customers overseas from Australia or by owning businesses overseas. *No Offshore Earnings* (5) – The company makes earnings from Australia only.	"Going and growing offshore can mean a longer period of growth, more and longer growth, larger markets etc." *(Private client portfolio advisor* (#19)) "It is an adjunct to the growth you can deliver from the Australian market." *(Analyst (#13))* "It's the ability to access two distinct markets the 2nd being unconstrained." *(Fund manager (#12))*
E_2	Sector	*See Table 14*	

E_7	Undervalued	*See Table 14*

Table 16
Key Investor Preference Constructs – Individual Investors (in alphabetical order)

No.	Key Construct	Explanation	Example Quotes
E_3	Growth Potential	*See Table 14*	
sE_9	History	*See Table 14*	
E_1	Management Quality	*Good Management* (1) – The extent to which the investor perceives the company as having management who run the business well. *Poor Management* (5) – The company's management are perceived as managing the business badly.	"I mean well run, professional." *(Individual (#23))* "It is a manager that has his finger on the pulse and pushes the company and is not involved in other companies and lifted it from a lower base to a higher base." *(Individual (#32))* "By perform I mean how they manage the company and lead the employees towards achieving company goals." *(Individual (#36))* "Experienced managers in the business. They know the market. They have an understanding of how the market thinks and what the market needs." *(Individual (#34))*
E_8	Market Competition	*Less Competitive Market* (1) – The extent to which the investor perceives the company is operating in a market which has a low level of competition. *Highly Competitive Market* (5) – The company is perceived as operating in a market with very high levels of competition.	"I prefer companies that have less competition because they make more profits. Strong competition effects companies' bottom lines." *(Individual (#33))* "In some markets companies have open slather and the competition is furious I like companies that have some protection against that kind of competition. It may be they have a unique product or a very strong

			position, almost unassailable." *(Individual (#28))*
E_{14}	Personal Knowledge	*Good Personal Knowledge*(1) – The extent to which the investor has knowledge from their own lived experience or by study that they believe can be applied to make judgements about the company.	"I have 40 years of experience in mining and I draw on this experience when investing because it is relevant and helps me make better evaluations of companies." *(Individual (#21))*
		No Personal Knowledge (5) – The company and/or its products or services are not something the investor feels they have any knowledge about.	"My many years of working in the industry (automotive) means I can understand the thoughts of the directors and business of the companies." *(Individual (#27))*
			"I have a good feel for these companies because I shop at them and have used their products. *(Individual (#33))*
E_6	Safe	*Safe* (1) – The extent to which investors perceive they don't have the potential of suffering a big loss from owning a specific company's shares.	"Safe companies may not always give you profits from shares but you don't have to be worried all the time that you will lose all your money." (*Individual* (#35))
		Risky (5) – The extent to which investors perceive they have the potential of suffering a big loss from owning a specific company's shares.	"I don't like stocks that have a lot of down side, ones that can go to zero. (*Individual* (#31))
			"I don't like risky companies where the investment is just like a gamble." (*Individual* (#25))
E_2	Sector	*See Table 14*	

4.2 Discussion

The objectives of this study were to identify the attributes of companies that are important to investors when deciding their investment preferences and identify similarities and differences between institutional investors and individual investors.

4.2.1 Post Hoc Thoughts on RGA as a Method for Studying Investor Preference

The RGA method was effective in eliciting constructs from investors that were important to investor preference. If instead of RGA in depth interviews of a comparatively small sample of investors had been employed the resulting data about constructs may not have been sufficient to overcome concerns about potential investor idiosyncrasies. The fact that of the 179 constructs identified from the research 88 constructs were idiosyncratic (i.e. could not be grouped with any other construct based on similar meaning) points to the potential problem from idiosyncrasy if in depth interviews had instead been used.

The cut-off thresholds for determining key (i.e. important) constructs based on frequency and the differentiating strength of constructs (ANVarp) seem reasonable in principle. However, although they are based on literature (Lemke et al., 2011; Goffin et al., 2006) they are arbitrary. Constructs that missed the cut may actually be important.

Based on the data it seems the cut-off for a key construct based on the differentiating strength of the construct determined from the spread of ratings, which was set at above average ANVarp, may be too high to capture all important constructs. Recording lower than average ANVarp scores on a construct could have something to do with the relationship between the way the elements (i.e. companies) were elicited and the nature of the construct.

For example, individual investors may have chosen the three companies they liked from the portfolio of companies whose shares they owned while their selection of companies they disliked may have been influenced by recent media reports about companies having problems. There is circumstantial

evidence for this in the number of times Qantas and Woolworths which were companies reported to be having problems in the media at the time of the interviews were elicited as disliked companies (n=5 and n=5 respectively). In such cases evaluating companies on some constructs requiring more specific financial performance knowledge could be difficult for individual investors if the evaluation required more information about the company than was immediately accessible to the individual investor. If so, the relatively low dispersion of ratings on a construct like Total Investor Return (E_{10}) (defined as the return to an investor from dividends plus capital gains) may be because of a tendency of the participant towards picking the neutral option and rating a lesser known company three. An attribute like Total Investor Return may be important to individual investors when they construct their preference making a decision to invest or not invest in a particular stock. This is when they are most likely to have relevant evaluative information at hand. The attribute may not be a good differentiator between companies otherwise. Gearing (E_5) is another example of a financial metrics construct that might have posed a challenge for individual investors lacking accessible relevant information when being interviewed. This attribute like Total Investor Return failed to make the cut-off as a key construct.

Institutional investors who typically hold a lot of financial information in their head would likely face less of a challenge than individual investors in situations like the example mentioned above. However, the relationship between the way the elements (i.e. companies) were elicited and the nature of constructs is worth considering for them too because of another plausible effect. Take, for example, the Predictability (E_{12}) construct which was frequently elicited from institutional investors (n=8). This construct is defined as the extent to which an institutional investor believes the future earnings of a company are predictable. It may be that when some institutional investors were asked to nominate the companies they disliked they nominated companies they believed to be among the most overvalued from a repertoire of companies they had good financial models on. Undervalued (E_7) was identified as a key construct of institutional investor preference in this research.

Based on data from interviews the predictability construct is important to some institutional investors because it influences them on whether companies are perceived as worth modelling at all because high variances in company financial performances make modelled out comes less reliable as a guide to valuation (Fund Manager #9). Having a sufficiently negative preference for a stock to justify it being nominated as disliked as an investment in an interview may be related to the predictability that the company will deliver bad earnings performance or financial results that do not justify the high valuation of the stock. If so, predictability may be an important construct to institutional investor preference but not a construct that is a good differentiator of liked and disliked stocks in the context of this research.

Overall my conclusion is that RGA provided a good methodology for identifying the attributes of companies that are important to investor preference but that constructs with high frequency that did not make the cut because of their ANVarp scores alone should not be ruled out as being potentially important to investor preference.

4.2.2 What the Data Tells Us about Differences between Individual Investors and Institutional investors

The first difference between individual investors and institutional investors apparent to the interviewer was that the constructs important to individual investors were defined simply and their importance explained simply compared with institutional investors. Individual investors typically explained each construct elicited in a sentence or two. They typically explained the reason why each construct was important in a sentence or two also. Institutional investors took longer defining their constructs and longer explaining their importance. A comparison of definitions in Table 17 from individual investors and institutional investors for the construct Sector (E_2) provides an illustration of this.

Table 17
Comparison of Differences in Data on the Construct Sector (E_2)

Data From Institutional Investors	Data From Individual Investors
"The prospects for the industry matter. I mean in this case credit growth in banks has been pretty reliable in Australia which drives the loan growth for the banks versus the IVF provider. Birth rates have fallen off in Australia and the growth rates of IVF have really fallen off in the last few years. Credit growth has been a lot more consistent and actually strengthening while IVF demand has been very muted and not increasing. Strength of demand and less volatile demand all fall under that (*good sector*). I want good prospects for the company which they get within a good industry. If the industry has got a good growth outlook you can easily assume the company does also." *(Fund manager (#15))*	"Sectors follow trends you know, mining will be up for a while or tourism. Now tourism is up it will go well for a while. Profits are better and growth is better when the sector is doing well." *(Individual (#37))*

One explanation for the longer time spent by institutional investors explaining their constructs could be that they are typically more comfortable talking about attributes of the companies they prefer than individual investors. However, the constructs elicited from institutional investors were more often complex concepts that required more explaining and there was more thinking out loud by the institutional investors as they pinned down the construct labels and best definitions. The Sector (E_2) construct for which definitions were compared in Table 15 was the only construct identified as important to both institutional investors and individual investors by this research as can be seen in Table 18 on the next page.

Table 18
Table for Comparison of Key Constructs of Categories of Investor

No.	Key Investor Construct	Institutional Investor Key Preference Construct	Individual Investor Key Preference Constructs
E_4	Dividend Yield	Yes	No
E_3	Growth Potential	No	Yes
E_9	History	No	Yes
E_6	Safe	No	Yes
E_2	Sector	Yes	Yes
E_7	Undervalued	Yes	No
	E_{20} Cash Flow	No	
	E_{19} Return on Invested Capital	No	
	E_{18} Pricing Power	No	
	E_{16} Offshore Earnings Potential	No	
	E_1 Management Quality	No	
	E_8 Market Competition	No	

You can get a sense of the difference in complexity by comparing one fund manager's definition and explanations of the importance of the frequently mentioned Predictability construct (E_{12}) with typical individual investor definitions and explanations for their constructs History (E_9) and Safe (E_6) (Table 19).

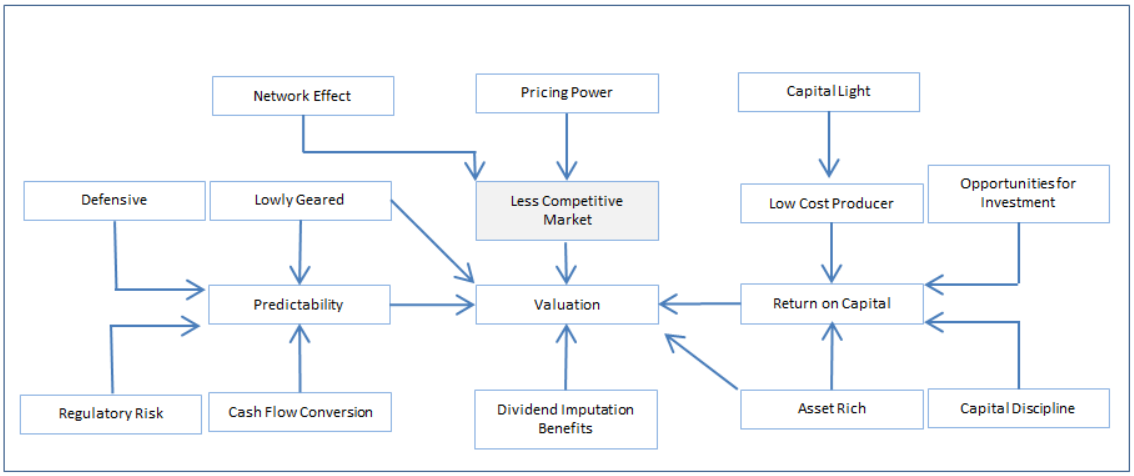
Table 19
Example of Differences in Typical Explanations for Key Institutional Investor and Individual Investor Preference Constructs

Data From Institutional Investor	Data From Individual Investors
Predictability construct (E_{12}) "Predictability that has so many different measures and there are various ones that we've had (our constructs) almost all of them are to some degree about predictability. It is in a very important subclass of that. In some ways that's the ultimate construct if you will. If I knew that my valuation is correct well in a limit I only need one stock right because I'd know we are going to make lots of money on it. There's always things that are under-priced and over-priced relative to each other that's how we look at it. Let's flesh the idea right. We only care about relative prices so by definition 50% of stocks are overvalued and 50% undervalued. So it is the case that if I could identify them with great certainty well that's it I've done it I then just have to sit back and wait. The market will eventually get to my value, the facts, and that's it. So predictability's incredibly important and there are some stocks that have a very narrow range of outcomes often of course you can make the case that they are not greatly miss-priced in which case there's not that much (profit opportunity) there. Others have a vast range of outcomes with a fat tail at the end if you will, and ideally in those ones what you want is a completely asymmetrical risk distribution. You want the market to think well it's all on this side here but you can see the whole range and go well I like this or I hate this because the market's just missing the risk. But ideally, again, for the same level of miss-pricing you want the company that has earnings certainty or valuation certainty. It's not even so much the earnings if you want to go to the last stage it's the value right." *(Fund manager (#9))*	History (E_9) "I mean the history of their financials and the history of management they are connected of course one goes with the other. I don't know the future no one does all we have to go on really is how they have done in the past and what that past means for the chance of doing well still. By doing well still I mean making good profits." *(Individual (#21))* "I look at the history to see if a company has been static, declining or going ahead in financial performance. I want to invest in companies that are going ahead because if you are not going ahead you are dying you cannot make profit on your shares owning I want to invest in companies that are going ahead because if you are not going ahead you are dying you cannot make profit on your shares owning dying companies." *(Individual (#26))* Safe (E_6) "I'm retired and don't want to take high risk that might jeopardise my superannuation savings. Safe means not a big chance of suffering large losses." *(Individual (#27))* "Safe is I guess quite like too big to fail. But it is not just size it is also other things like if the face difficulties I won't lose all my money. Safe companies may not always give you profits from shares but you don't have to be worried all the time that you will lose all your money." *(Individual (#36))*

Although the objective of this research was to identify the attributes important to investors not delineate the structures of investor knowledge it is illuminating when considering differences between the two investor categories to see how constructs are positioned relative to each other in conceptual nomological networks. In Figure 8 and Figure 9 I present two conceptual nomological networks derived by the one level of downward laddering in the data for two of the quoted participants in the earlier presented Table 19 *(Fund manager (#9); Individual (#21).*

Figure 8

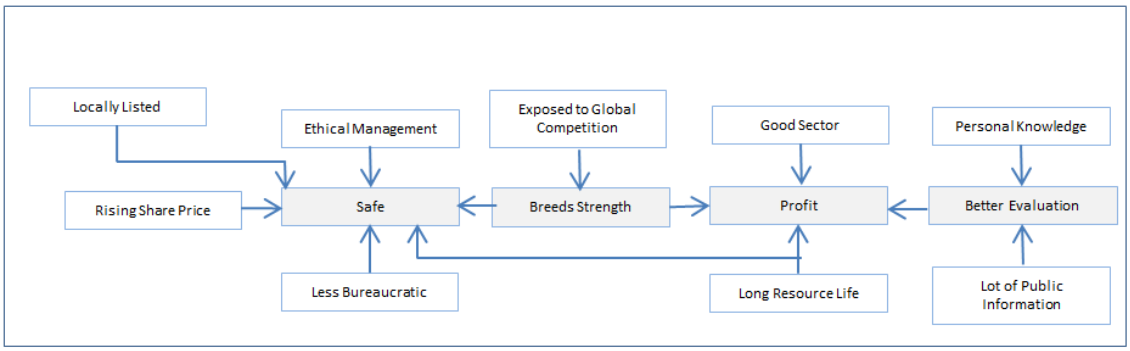
Conceptual Nomological Network of Investor Preference Constructs (Fund Manager #9)



Note: The grey shaded construct box was given as the reason Pricing Power (E_{18}) was important but the institutional investor did not believe it warranted being added as a separate construct in his grid.

Figure 9

Conceptual Nomological Network of Investor Preference Constructs (Individual #21)



Note: The grey shaded construct boxes were given as reasons why the related constructs in this grid were important but not nominated as constructs for inclusion in the participant's grid.

The networks in Figures 9 and 10 are illustrative of a fundamental difference between institutional investors and individual investors that was found in the data from the participants explanations of why a particular attribute was important to them. The constructs of institutional investor preference typically converge on a single evaluative judgement of valuation. The constructs in individual investor preference typically contribute to one of the two following judgements: safe or profit (potential for profit from shares).

In the institutional investor's own words:

> "To me we're value investors right, therefore the only thing that at the end of the day that matters is if the thing's cheap right. I do not mind buying a 4 out of 10 business so long as the price is 2 out of 10. And similarly I don't care how fantastic a company is if the price is wrong because if the price is wrong I have no interest in it." *(Fund manager (#9))*

Valuation is captured by the Undervalued (E_7) construct in the key institutional investor preference constructs list. From the data it seems investor preference may for many institutional investors be subsumed in the Undervalued (E_7) construct. One institutional investor put it this way:

> "All the assessment of every stock is just relative to what we perceive as value there. It's all got to be relative to value. You can look at it and say that's a piece of crap company and that's a legend company but then if that one's got a price that is way above legend status it's unattractive but if that one's priced way below crap it could be really attractive." *(Fund manager (#5))*

Safe (E_6) is a construct in the individual investor key preference constructs list. Profit, defined as the extent to which an investor believes they are able to make a profit from a stock, was not mentioned as a construct differentiating companies in triads but was often given as the reason why a construct was important. When asked if "profit" or some modification of the label based on how the participant explained the reason for another constructs importance should be added to their grid as a distinct

construct the answer always given was “no”. The typical explanation for not including profit was that the participant could not rate companies on that because “profit from a company’s shares that is too uncertain anything can happen” *(Individual (#45)).*

A conceptualised summary of the conclusions could be that:

1) Individuals typically prefer safe companies with a good history that may deliver them a profit on their shares because those companies have good growth potential, are well managed in a good sector, with a less competitive market;

   Whereas,

2) Institutional investors typically prefer undervalued companies that are in a good sector and have good pricing power, good cash flow and are achieving a high return on invested capital while offering a good dividend yield.

The above summary statements are intended to be illustrative only because they are an oversimplification of the real world situation in which attributes are likely to have to be traded off against each other by investors when making investment decisions about companies.

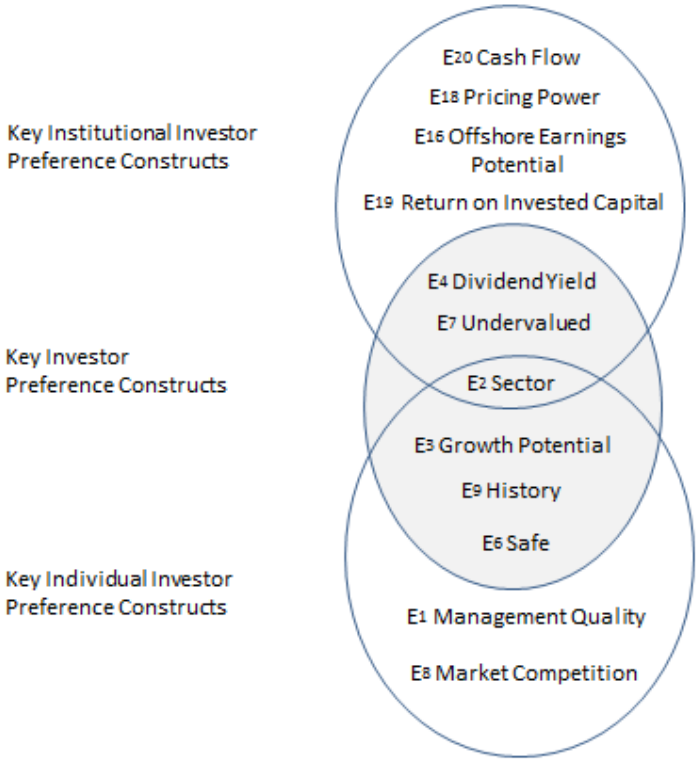
4.2.3 Comparison of Empirical Evidence from this Study with Extant Literature

In this section I compare the findings from this study with each of the three categories of literature critically evaluated in Chapter Two.

4.2.3.1 Positioning Relative to Correlational Studies Literature

The results of this research support the assumption implicit in the correlational studies of investor preference that there are differences between the attributes important to institutional investor preference and those important to individual investor preference. This is illustrated in Figure 10 below which shows how only one construct (Sector (E_2)) was identified as important to both institutional investors and individual investors by this research. However, the results also support the criticisms made in the literature review about the correlational studies. Specifically, that the con-

Figure 10
Venn Diagram of Key Investor Preference Constructs

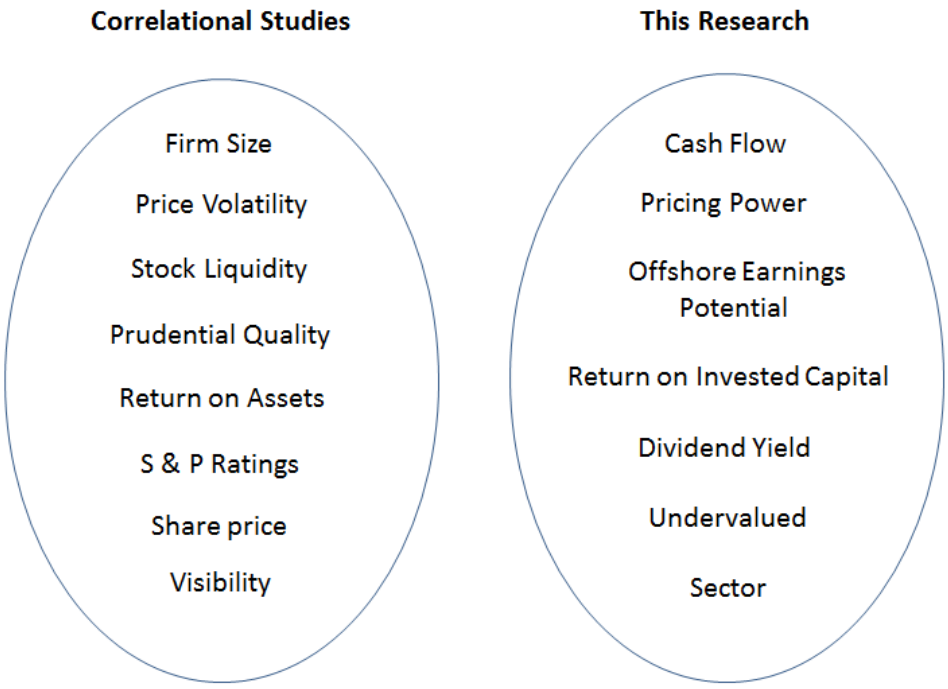


Source: Prepared from research data for inclusion in this thesis

-clusions from studies using the methodology of determining investor preference based on stock ownership data are constrained because they cannot distinguish “liked” from “less disliked”, have focused their research on independent variables determined from financial accounts and also the context effect sensitivity of preference measured using aggregated share ownership data (revealed preference) means the effects of changing share price related valuation considerations on institutional investor decisions cannot be easily disentangled statistically or practically from the effects of preferences for stock/company or management attributes. None of the constructs found to be correlated to institutional investor preference in the extant literature were identified as important to institutional investors in this study (Figure 11).

Figure 11

Venn Diagram of Institutional Investor Preference Constructs Comparing Correlational Studies With Thesis Research Results



Source: Prepared from thesis research data and correlational studies literature reviewed earlier in this thesis

Where there is a commonality is between the construct Offshore Earnings Potential (E_{16}) identified in this research and the variable Exports/Foreign Sales (C_{13}) (see Figure 2) which was used as one of a set of four proxy variables for the construct firm "visibility" (Kang and Stulz; 1997; Dahlquist and Robertsson, 2001; Covrig, Lau and Ng, 2006). However, based on this research the preference institutional investors have for this attribute is not related to visibility but instead preferred because it means better long term growth potential (*Fund manager (#2)*; *Analyst (#4); Fund manager (#12); Analyst (#13); Analyst (#13); Private Client Portfolio Adviser (#19)*).

The difficulty of isolating from financial accounts the kinds of constructs important to institutional investors can be illustrated by looking at Return on Assets (C_{10}) from the correlational studies compared to Return on Invested Capital (E_{19}) identified in this research. Returns on assets are determined by measuring the profit of a company in relation to the total assets of the company. Company assets can include capital goods but also intangibles as well as cash and liquid investments and the returns ratio can be effected by writing down assets like goodwill or by paying large special dividends to shareholders. These one-off items can mean a rise in the calculated return based on the reduced value of the assets in the accounts. The Return on Invested Capital (E_{19}) construct identified in this research refers to the extent to which the investor perceives the company is achieving a high return on the capital invested by management in their business not on the base of assets in their accounts.

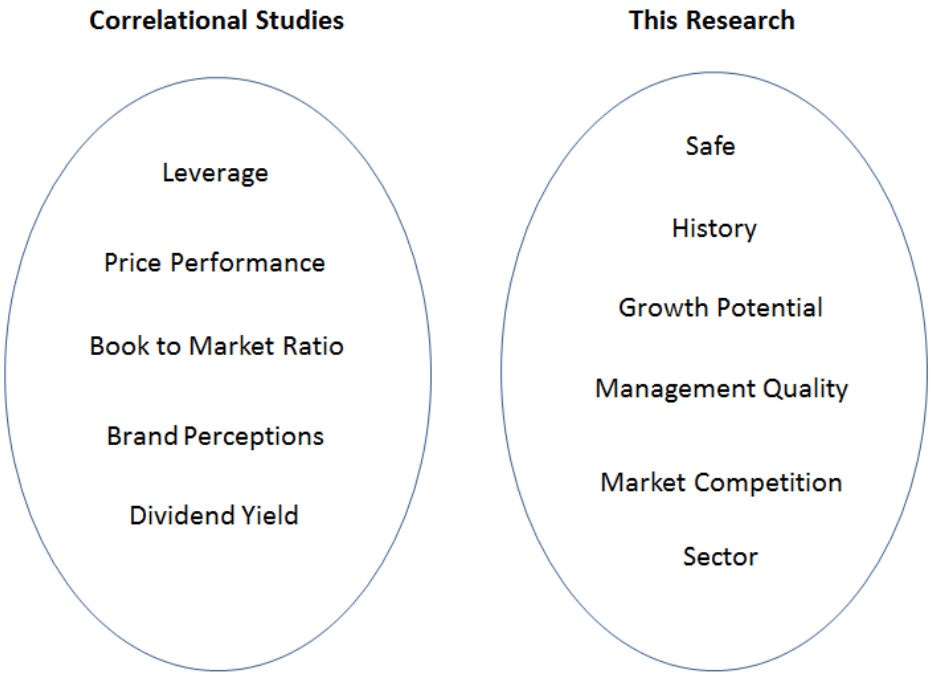
Contrary to the correlational studies which found, based on proportional ownership data, that dividend yield was a construct more preferred by individual investors than institutional investors. This study found dividend yield to be a key construct for institutional investors and not a key construct for individual investors. It is also one of only two constructs (the other Undervalued (E_7)) found in this research where the evaluative judgements of investors of a company on the attribute could be sensitive to the context effects of share price changes. Evaluative judgements on the other constructs

because of their nature are likely to be more stable and enduring then constructs associated with share prices. The finding mentioned earlier in this discussion that preference for a company seems to be subsumed in the Undervalued (E_7) construct supports the criticism made in the literature review that there is a risk from measuring preference using aggregated share ownership data (revealed preference). We can assume based on this research that evaluative judgements on the Undervalued (E_7) construct are one of the main drivers of institutional investor preference because we have found the construct to be an important attribute of institutional investor preference. Evaluative judgements on this construct are sensitive to share price changes. Changes to aggregated institutional share ownership resulting from changing evaluative judgements on the Undervalued construct mean correlational studies relying on institutional stock ownership data to measure preference will have difficulty disentangling statistically or practically the effects of preferences for stock/company or management attributes from the effects of changes to ownership due to valuation considerations alone.

None of the constructs found to be preferred by individual investors in the correlational studies were identified as important to individual investors in the thesis research (Figure 12 over page). The constructs identified in this thesis research were mostly of a kind that required subjective evaluations by investors, be they institutional investors or individual investors, and not like the objectively evaluable metrics typical of the correlational studies. The conclusion is that, despite the quantity of the literature, the research using correlational studies employing stock ownership data provide a poorer understanding of the attributes important to investor preferences than the research of this thesis which employed repertory grid analysis.

Figure 12

Venn Diagram of Individual Investor Preference Constructs Comparing Correlational Studies With Thesis Research



Source: Prepared from correlational studies literature reviewed earlier in this thesis

4.2.3.2 Positioning Relative to Investor Meetings Research Literature

The studies of investor meetings found institutional investors perceived those meetings as their most important source of investment information (e.g. Barker, 1998; Barker et al., 2012; Hendry et al., 2006; Holland, 1998; Holland and Doran, 1998; Roberts et al., 2006). The investor meetings studies explored why the meetings are important (e.g. Barker et al., 2012), the role they play from the perspective of company managers (Holland, 1998) and their role in the relationships between institutional investors and listed companies (Hendry et al., 2006). In addition to being an economically efficient mechanism for building an understanding of a company the meetings were found to provide a means for obtaining soft or qualitative kinds of corporate information (Hendry et al., 2006). Institutional investors were found to use the subjective evaluative company variables from the

meeting as "intermediate means to create information about more fundamental variables such as next period expected cash flows and earnings" (Holland, 1998, p.48). This was because they were closer to institutional investors' future oriented valuation model variables than published historical financial numbers. I classified these variables as "Indirectly Financial" variables in the literature review because they are not financial themselves but employed by institutional investors for the purpose of the formal financial modelling of company performance projections.

The finding of this study that Undervalued (E_7) is a key construct of institutional investor preference which seems to subsume preference provides a plausible hypothesis for why institutional investors perceive investor meetings as their most important source of information. Investor meetings provide institutional investors with the indirectly financial variables they require to formally model the future financial performance of companies which enable them to make their evaluative judgements on the construct Undervalued (E_7). Consistent with this hypothesis attributes like Trust (Q_4), Management Quality (Q_1) and Confidence (Q_5) are potential antecedents of Undervalued because they are considerations that might be important for an investor when setting the rate to discount back future earnings to arrive at an estimation of intrinsic value. Also they may have an influence on some kind of margin of safety consideration associated with the perception of Undervalued as evidenced by the comments of this institutional investor:

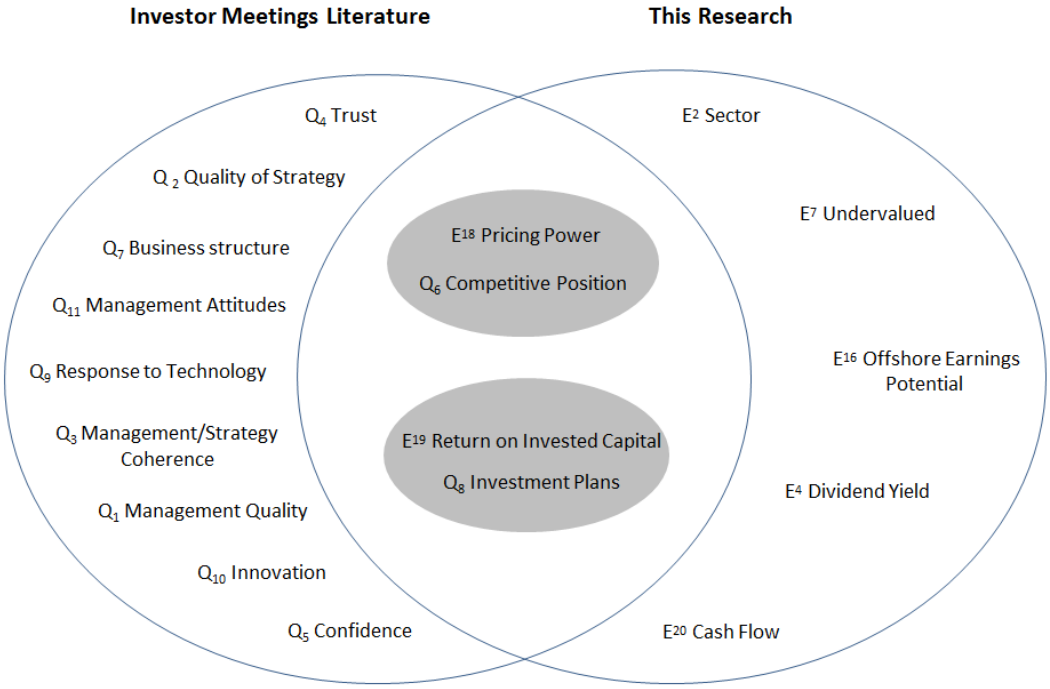
> "Value is not the P/E or price to book or anything like that it is the whole kit and caboodle, everything put together, we consider all the possibilities in the spectrum then you say "OK" what are we happy to say this is a decent valuation for this company then you want your margin of safety and obviously consider a lot of things and that's your value." *(Fund manager (#9))*

The variables reported as important in the investor meetings literature were identified from data on the questions being asked by institutional investors in those meeting. Looking therefore for possible other associations between those questions and the objectives of those questions which may plausibly

be found in the key constructs of preference identified by this research two stand out in Figure 13 below. Competitive Position (Q_6) is plausibly associated to Pricing Power (E_{18}) because companies perceived to be in a weak competitive position are unlikely to have pricing power. Investment Plans (Q_8) with Return on Invested Capital (E_{19}) because making an evaluative judgement of future returns from investments probably requires some knowledge of what the investment plans of a company's management are.

Figure 13

Venn Diagram of Institutional Investor Preference Constructs Comparing Investor Meetings Literature With Thesis Research



Source: Prepared from thesis data and investor meetings studies literature reviewed earlier in this thesis

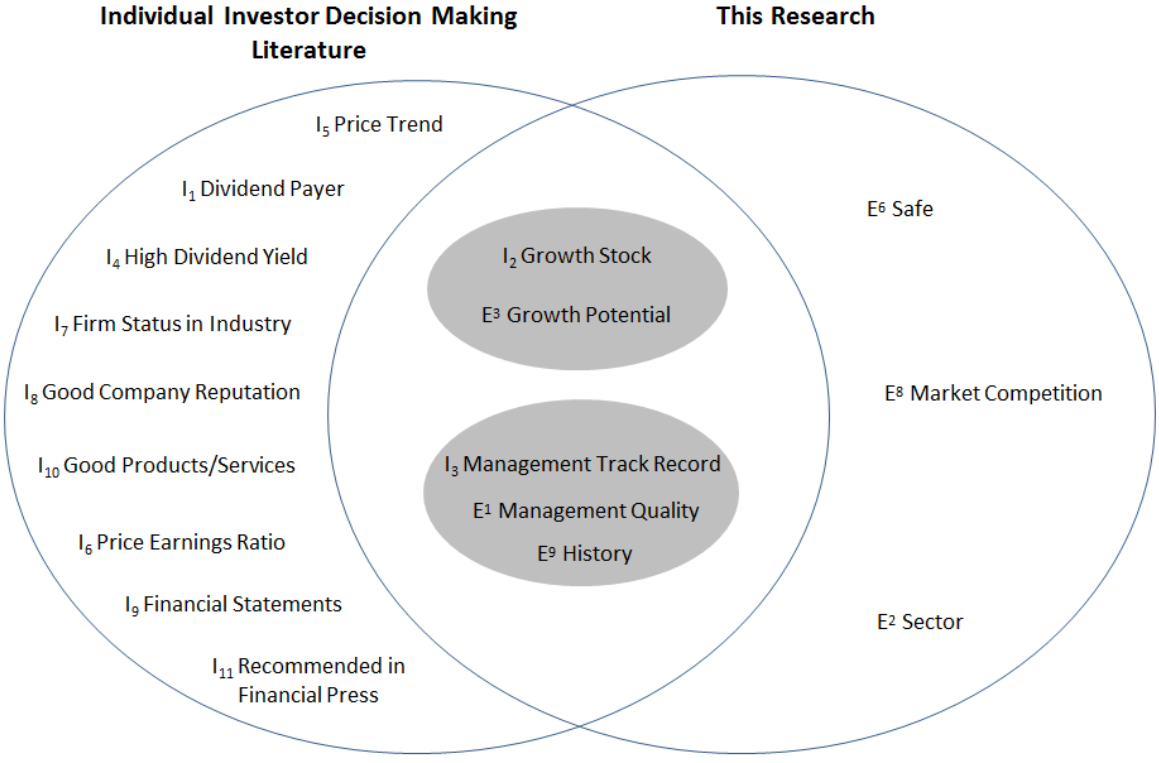
4.2.3.3 Positioning Relative to Literature on Individual Investor Decision Making

The Venn diagram on the next page (Figure 14) shows the similarities and differences between the key constructs of individual investor preference from this research and the constructs found to be

important to individual investor decision making in extant literature. The comparison is interesting because, unlike the correlational studies where variables seem to have been chosen based on normative models from finance, the variables studied in the individual investor decision making literature were derived based on preliminary exploratory research. However, as I showed in the literature review the exploratory stage of the research has been poorly reported in the articles and in one important case (i.e. Clark-Murphy and Soutar, 2004) it seems that the decision on how the variables were incorporated in the main study was influenced by advice from securities analysts in a way that could potentially have biased the research towards attributes more easily evaluated by analysts than by individuals thereby constraining the validity of their conclusions.

Figure 14

Venn Diagram of Individual Investor Preference Constructs from Extant Literature and Thesis Research



Source: Prepared from research data and individual investor decision making literature reviewed earlier in this thesis

Clark-Murphy and Soutar (2004) surveyed members of the Australian Shareholders Association. The individual investors in the sample for this study were also mostly members of that association (n=16) which means the characteristics of the participants of that study and this one are probably quite similar. Had it been known at the outset of this study that the two samples would likely have similar characteristics it could have been hypothesised then that this exploratory research would have identified similar constructs to those that Clark-Murphy and Soutar found in their exploratory study. They went on to translate the constructs from their exploration into a form suitable for use by their adapted conjoint analysis (ACA) approach methodology helped in the process by advice from securities analysts. It was conjectured in the literature review that it was probably at the translation stage that biases were introduced that may have impacted the validity of their study results towards constructs more readily evaluable by analysts than individuals. Nagy and Obenberger (1994), the other core literature on individual investor decision-making did not explain the qualitative stage of their research much at all.

The absence of good definitions in the literature makes comparing the constructs in those studies with the findings of this research more difficult. Growth Stock (I_2) and Growth Potential (E_3) look very similar. Management Track Record (I_3) could plausibly be related to History (E_1) and Management Quality (E_1) possibly at a different level of abstraction. For example, investors might infer the position of a company on the Management Quality construct based in part on their evaluative judgements of a management's track record. The perception that a company's management have a good track record may be in part be evaluated from perceptions concerning the history of the company. What is harder to explain is why Safe (E_6), Market Competition (E_8) and Sector (E_2), are missing from the extant literature.

One plausible explanation for the differences could simply be because of the different methodologies used to determine constructs in the research. For example, if a researcher does exploratory in-depth interviews with individual investors regarding how they make their investment decisions they may

surface variables that are their idealised method for choosing stocks. The researcher may also surface variables that are used to imply positions on important constructs but not identify the constructs themselves. This latter explanation seems relevant because it is plausible that Financial Statements (I_9) are employed by investors to evaluate whether a company is Safe (E_6) so might Good Company Reputation (I_8), Firm Status in Industry (I_7) and having Good Products /Services (I_{10}). This study did not ask individual investors how they made their decisions so a conclusion concerning differences in the levels of abstraction between the constructs found to be important in the extant literature and the key constructs of individual preference found in this research cannot be reached from the data. The differences between the findings of this research and the extant literature are also interesting for the significance they have on the positioning of the results within the marketing literature.

4.2.4 Investors as Expert Consumers

It was explained in the literature review how orthodox finance theory does not distinguish between individual investors and institutional investors but that individual investors have been found to not fit the profile of a stock trader with a diversified stock portfolio as assumed in finance theory (e.g. Capital Asset Pricing Model (CAPM) (Lintner, 1965; Mossin, 1966; Sharpe, 1964)). In the review it was suggested that it would probably be useful to think of individual investors as non-expert consumers deriving emotional as well as financial utility from the consumption of stocks.

Compared with the experts (i.e. institutional investors) the typical individual investor probably lacks experience and training. So as a non-expert consumer it was expected this research would find individual investors differed from institutional investors in both the content of their knowledge and the way their knowledge was organised. There was nothing in the extant literature to suggest that this was not the case and the identification of the differences between individual investors and institutional investors was the secondary research question after finding the constructs important to investors as a whole.

I explained in the literature review that the differences between non-experts and experts have been found to be accentuated in high-involvement consumption categories requiring deep processing if product attributes important to experts reside at a higher level of abstraction. A simple comparison of the constructs identified in the research on institutional investors from the investor meetings studies with the constructs found important to individual investor decision making in the decision-making literature (Figure 5) showed differences that seemed consistent with the attributes important to institutional investors residing at a higher level of abstraction than the attributes important to individual investors. The differences from that comparison were consistent with the findings from consumer expertise research that the shift from a basic level of categorisation which is believed to be determined mainly by concrete perceptual attributes to deeper levels that are more abstract and enable finer discriminations between objects occurs with increases in expertise.

It would have been plausible therefore when embarking on this research to hypothesise that the constructs important to individual investors would be very similar to the kind of concrete perceptual attributes found in the extant literature on individual investor decision making. It would also have been plausible to hypothesise that the constructs important to institutional investors would be less like the kind of concrete perceptual attributes studied in the correlational research on investor preference and more like those identified in the investor meetings studies which exhibited deeper levels of abstraction. The latter proved to be the case but not the former.

As can be seen from Figure 14 (page 127) the attributes important to individual investors are subjective evaluations different from the kind of concrete objective variables in the extant literature and though different in the details from the institutional investor constructs (Figure 10) still suggesting a nomological network with considerable complexity and multiple levels of abstraction. This study only employed one level of downward laddering so the depths of the levels of abstraction remains something for further study.

Because the sampling of individual investors to ensure rich data involved interviewing a category of investors who were knowledgeable and had confidence to talk about their investment decisions (i.e. "the confidents") the final sample is more rightly describable as a sample of expert individual investors rather than a sample of non-expert investors. The sample is experienced individual investors who have expert knowledge from their experience. Consistent with Kelly's PCT the personal construct systems of these individual investors will have evolved through repeated reinterpretations of their investing world and of their personal investment experiences. The investing knowledge of these individuals is continually evolving and the construct systems they employ to anticipate investing events and determine their investment decisions provide the expert knowledge they need to make their decisions in an environment of information asymmetry where institutional investors have access to company management through investor meetings and individual investors use different information.

Most of the constructs found to be important to individual investors are very different from the constructs found to be important to institutional Investors. Sector (E_2) was the only construct important to both categories. The important individual investor construct Market Competition (E_8) is plausibly some kind of associated proxy variable for the important institutional investor preference construct Pricing Power (E_{18}) because there is some logic to the view that companies in highly competitive markets may have their pricing power competed away. However, other than these two constructs those important to individual investor preference do not seem obvious proxy variables for any of the constructs important to institutional investor preference. Instead, the conclusion based on the data is that individual investors mostly have a preference for different kinds of companies then institutional investors. This difference was illustrated in the summary statements for the preferred companies for both categories of investor on page 119.

A plausible hypothesis for the absence of obvious proxies is that instead of important individual preference constructs being proxies for important institutional constructs their set of important constructs collectively act as some kind of proxy for the set of important institutional investor

constructs. According to this hypothesis, because of information asymmetry and based on experience, expert individual investors make evaluative judgements of companies based on the constructs important to them and then extrapolate forward their evaluations instead of making forward looking evaluative judgements from financial modelling like institutional investors. According to this hypothesis consumer expertise in high involvement consumption categories may develop differently in situations of information asymmetry. This raises questions about the utility in such situations (e.g. investment property buying, antique buying etc.) of employing any parsimonious multi-attribute preference model as a tool for making predictions about consumer choices overall.

4.2.5 Contributions

This study makes a method contribution to literature by employing a well-established technique developed in clinical psychology and subsequently used for the exploration of consumer behaviour to explore investor preference. The value of this contribution is highlighted by the fact that the research findings confirm that the extant literature on investor preference has not been capturing the attributes of companies that are most important to investors. The attributes important to investor preference identified by this research are presented here in the form of three new conceptual models of investor preference, institutional investor preference and individual investor preference.

Figure 15
Conceptual Model of Investor Preference

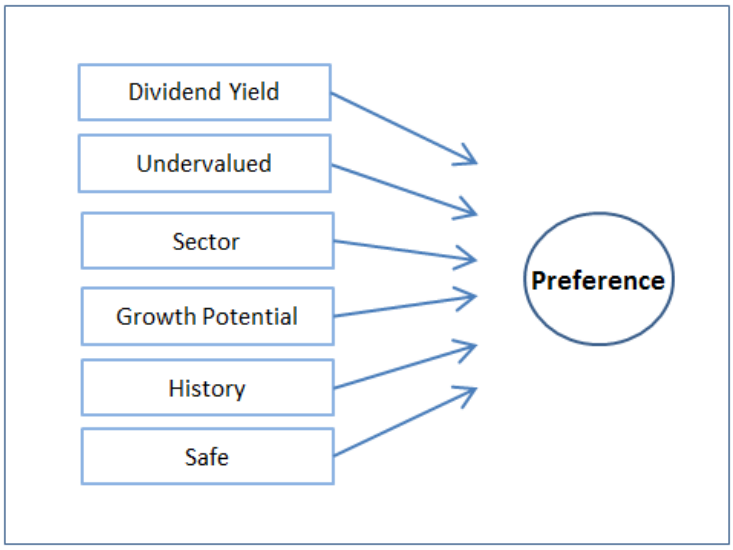


Figure 16
Conceptual Model of Institutional Investor Preference

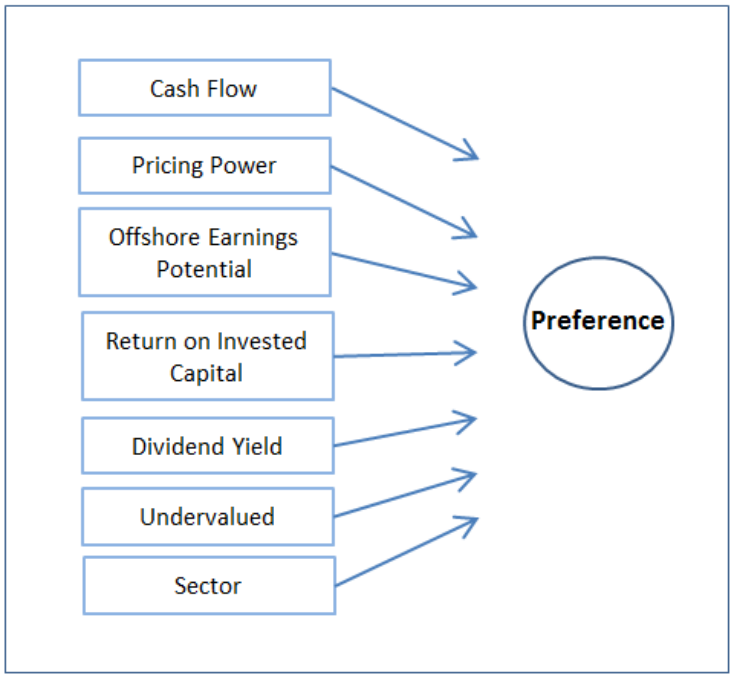
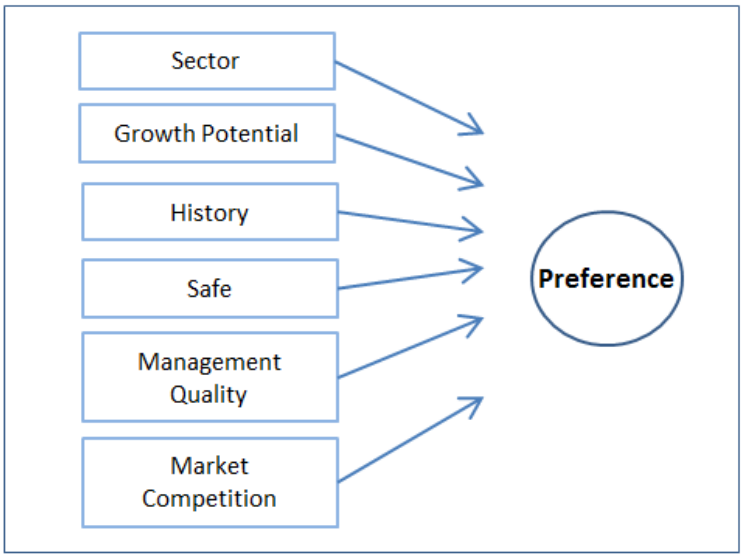


Figure 17
Conceptual Model of Individual Investor Preference



This study makes a contribution by demonstrating that one methodology employed in research on consumer behaviour can also be usefully applied to the investigation of investor behaviour suggesting that employing other methodologies may also prove fruitful. The potential usefulness of methodologies from marketing to study investors has been suggested before (e.g. Statman (2004)) but to date little research along these lines has been reported in literature. In this regard, the conceptual models together with the definitions of constructs based on the explanations of the constructs by investors themselves contributes potentially a good starting point for follow-up research using other consumer based research methodologies (e.g. survey research). The argument for employing methodologies from marketing for the study of investor behaviour is reinforced by the findings that none of the constructs preferred by institutional or individual investors according to the correlational studies were found to be important to them in this research. Instead the constructs identified were mostly of a kind that required subjective evaluations by investors, be they institutional investors or individual investors. The constructs identified were dis-similar from the objectively evaluable metrics typical of the correlational studies and research in the academic discipline of finance. It is significant that, despite investor behaviour being an area of extensive study by finance

scholars, prior to this thesis there have been no exploratory studies of institutional investor preferences reported in literature.

The practical contributions of this thesis relate to corporate strategic decision-making and how this is communicated to investors. A nuanced interpretation of the research results seems most practical. It is significant that institutional investors and individual investors have been found to have preferences for different attributes. Anecdotal evidence from the researcher's prior interactions with practitioners by virtue of the researcher's past memberships of the New York Chapter of the National Investor Relations Institute (NIRI), the Investor Relations Society (IRS) in London and the Australian Investor Relations Association (AIRA) suggests companies write their investor communications such as annual reports, presentations and investor relations website pages mostly with institutional investors in mind and assume that by simplifying the language and using charts and tables they add value by making the information more comprehensible for individual investors. This research suggests that attitude may be flawed because individual investors see different constructs as important.

According to this research, to increase institutional investor preference for their company shares, managements when making strategic decisions should consider how their decisions effect company cash flow (E_{20}); pricing power (E_{18}); offshore earnings potential (E_{16}); returns on invested capital (E_{19}) and dividend yields (E_4). Rather than assuming that individual investors have the same preferences but require simplified explanations of company decisions managements instead should communicate strategic decisions to individual investors by translating the benefits of decisions into how they add to growth potential (E_3), effect the company's position with regard to market competition (E_8), demonstrate management quality (E_1) all without making the company seem a more risky investment (Safe, E_6). Communicating more about a company's sector to highlight the positives is also recommended since this is found to be important to both institutional investors and individual investors. And, though history was not found to be important to institutional investors its importance to individual investors means more communication on this topic is recommended.

4.2.6 Limitations

There are limitations inherent to every research design which is why it is important that the research design with the most appropriate approach is used for any particular study (Zikmund et al., 2010). This study used purposeful sampling to provide information rich data (Patton, 2002) with snowballing but the consequences were that the final sample consisted of individual investor participants who were all in the same age group (i.e. over 55). Because participants were all in the same age group and also likely had on average more investment experience then investors in younger age groups there is a negative impact on the generalisability of the findings from this study.

The RGA method was effective in eliciting constructs from investors that were important to investor preference and obtaining good personal definitions for each construct. However, the cut-off threshold for determining key (i.e. important) constructs based on the differentiating strength of the construct determined from the spread of ratings, which was set at above average ANVarp (Lemke et al., 2011; Goffin et al., 2006), may be too high. Some constructs with ANVarp scores close to but below the threshold may also be very important to investor preference.

4.2.7 Further Research

It is recommended that further study be done into the magnitudes of the effects of the frequently mentioned constructs from this study on investor preference such as could be undertaken using a survey designed specifically for this task. Such research could determine the relative importance based on effect sizes of the preference attributes identified by this study to prove a model of investor preference. Such a model would be a useful step towards determining some value for the contribution made by investor relations to a company's market valuation. Investor relations is one of the few sub-disciplines of management for which no outcomes-based key performance indicators (KPIs) are presently available for practitioners. A model of investor preference could provide the basis for investor relations management KPIs. According to orthodox finance theory investor relations contributes no value to companies because company share prices are assumed to be determined

based solely on the valuation of the future cash-flows discounted back to the present at rates determined by investor perceptions of risk. Orthodox finance theory holds that investor preference is therefore not material to market capitalisation and the monies spent by companies on investor relations are at best purely a listing compliance related cost.

This study explored investor preference another related subject that could usefully be explored using RGA is shareholder satisfaction which may have effects on decisions by investors to hold or sell stocks thereby influencing the supply side of the demand/supply dynamic that likely effects share price performance and company market valuations.

This study found that institutional investor preference may be largely subsumed in a single construct which is based on investor perceptions of a company's share price relative to its perceived intrinsic value (i.e. "Undervalued"). Further research using quantitative methods is recommended to determine the extent to which this is the case.

This study found that the attributes important to individual investors are subjective evaluations different from the kind of concrete objective variables in the extant literature but still suggesting a nomological network with considerable complexity and multiple levels of abstraction. Further study is recommended into the relationships between the constructs important to individual investor preference. To what extent, for example, is the relationship between positive perceptions of the history of a company and investor preference mediated through the perceived quality of corporate management?

This study found there were big differences between the constructs important to individual investors and those important to institutional investors. It was surmised from these findings that because the sub-sample of individual investors were probably "expert individual investors" that expertise may develop differently for different types of investors because of information asymmetry. Further research is therefore recommended to examine whether and how the perceived value of different

sources of information changes as investors gain more investment experience. Further research on this subject might aid the development of improved training for individuals to shorten the learning curve and help make them better investors more quickly and thereby achieve better outcomes when they invest their money.

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Appendix One: Participant Information Sheet

Queensland University of Technology
Brisbane Australia

PARTICIPANT INFORMATION FOR QUT RESEARCH PROJECT
– Interview –

An exploratory study of investor decision making

QUT Ethics Approval Number 1400000019

RESEARCH TEAM

Principal Researcher:	Peter Schiefelbein – Masters by Research student
Associate Researchers:	Professor Ian Lings and Associate Professor Larry Neale
	School of Advertising, Marketing and Public Relations – QUT Business School Queensland University of Technology (QUT)

DESCRIPTION

This project is being undertaken as part of Research Masters degree by Peter Schiefelbein.

The purpose of this project is to explore the attributes of companies that are important to investors when they make their investment decisions.

You are invited to participate in this research project because you are an active investor in company shares.

VOLUNTARY PARTICIPATION

Your participation will involve a structured interview that will be audio recorded if you agree. During the interview you will be asked questions about the attributes of some companies that you like and dislike as investments. Questions will include how you perceive these companies to be similar or different from each other.

The interview will take place at a venue of your choosing and will take approximately one hour of your time. Questions will include how in a set of three presented companies you perceive that a characteristic shared by two companies makes them similar and different from the third.

Your participation in this project is entirely voluntary. If you do agree to participate, you can withdraw from the project at any time without comment or penalty. Any identifiable information already obtained from you will be destroyed. Your decision to participate, or not participate, will in no way impact upon your current or future relationship with QUT.

EXPECTED BENEFITS

It is expected that this project will not benefit you directly. However, this research will improve understanding of the attributes that are salient to investors when making investment decisions and could provide a range of indirect benefits for participants. The publication and promotion of this research may increase the level of understanding for executives of exchange listed companies concerning the kinds of information most valued by investors which may help them when communicating about their company through their investor relations activities.

Individual investors may benefit from this research by having an improved understanding about the attributes institutional investors as professional investors think salient when they make their investment decisions. A summary of the findings of this research will be provided to you by email at the completion of the research.

RISKS

There are no risks beyond normal day-to-day living associated with your participation in this project.

PRIVACY AND CONFIDENTIALITY

All comments and responses will be treated confidentially. Any data collected as part of this project will be stored securely as per QUT's Management of research data policy.

The audio recording of interviews will only be accessible to the researchers and will be destroyed after the contents of the interviews have been transcribed. If you do not wish the interview to be audio recorded written notes will be taken instead. Please note that non-identifiable data collected in this project may be used as comparative data in future projects and could be shared with other academic researchers in future collaborative research. We plan to publically present and publish the results of this research, however information will only be provided in a form that does not identify you.

CONSENT TO PARTICIPATE

Once you understand what the project is about, and if you agree to participate, we ask that you sign the Consent Form that accompanies this participant information document to confirm your agreement to participate. The Consent Form will be collected from you prior to the interview.

QUESTIONS / FURTHER INFORMATION ABOUT THE PROJECT

If you have any questions or require any further information please contact one of the research team members below.

Peter Schiefelbein	Prof. Ian Lings	A/Prof. Larry Neale
3138 1407	3138 2972	3138 2274
Peter.schiefelbein@student.qut.edu.au	ian.lings@qut.edu.au	l.neale@qut.edu.au

CONCERNS / COMPLAINTS REGARDING THE CONDUCT OF THE PROJECT

QUT is committed to research integrity and the ethical conduct of research projects. However, if you do have any concerns or complaints about the ethical conduct of the project you may contact the QUT Research Ethics Unit on 3138 5123 or email ethicscontact@qut.edu.au. The QUT Research Ethics Unit is not connected with the research project and can facilitate a resolution to your concern in an impartial manner.

Thank you for helping with this research project. Please keep this sheet for your information.

Appendix Two: Example of Repertory Grid

Repertory Grid

Name of respondent: ABC
Address:

Date: Tel:

Age 73

Construct (1)	(5) Contrast (pole)	ROC Oil	Centuria	Cochlear	Harvey Norman	Challenger Financial	Sydney Airport	Billabong	JB HiFi	Tassal
		1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
Like the Sector	Don't Like the Sector	2	1	1	3	1	1	4	4	4
Good Longterm Profit Prospects	Poor LongInstability	4	3	1	3	1	1	4	4	3
Good management	Bad Management	3	2	1	2	1	1	5	1	1
Large Share Ownership by Management	No/Low Share Ownership	5	2	2	1	3	4	5	3	4
Low Borrowings	High Borrowings	3	2	1	2	4	5	5	3	3
Favourable Demographics	Unfavourable Demographics	4	4	2	3	1	3	4	4	4
High Dividend Yield	Low Dividend Yield	5	4	4	2	2	1	5	4	4
Low Technology Risk	High Technology Risk	3	1	5	3	1	1	1	3	1
Monopolistic Market Position	Highly Competitive Market	5	5	3	5	3	1	5	5	5
Good Eranings History	Bad Earnings History	5	5	1	2	1	1	5	1	3
Stable Earnings	Volatile Earnings	5	3	3	3	2	1	5	2	3

Appendix Three: Full Construct List (in Alphabetical Order)

Construct	Institutional	Individual
A Lot of Public Information		✓
Ability to Withstand an Economic Downturn		✓
Able to Move with the Times		✓
Acquisitions Opportunities	✓	
Aligned with a Theme	✓	
Alignment of Management and Shareholder Interests	✓	✓
Allows Dividend Reinvestment		✓
An Essential Product		✓
Analyst Recommendation		✓
Assets	✓	✓
Barriers to Entry	✓	
Benefitting from Currency Movements	✓	
Blue Chip Stock	✓	
Board Track Record	✓	
Brand Equity	✓	
Broad Market	✓	
Broad Shareholder Base		✓
Capital Allocation		✓
Capital Expenditure		✓
Capital Light	✓	
Capital Return to Shareholders	✓	
Captive Customer Base		✓
Cash Flow	✓	
Catalyst	✓	
Change in Cash Flow Translation	✓	
Change in Returns on Equity	✓	
Clear Strategy	✓	
Company Investment History		✓
Company is Easy to Understand	✓	✓
Confidence in the Expertise of Directors		✓
Contribution to Society		✓
Corporate Governance	✓	✓
Cost Management	✓	
Current Ratio		✓
Customer Relations		✓
Cycle in Favour of Company	✓	
Discount Rate	✓	
Diversified	✓	✓
Dividend Growth		✓
Dividend Imputation Benefits	✓	✓
Dividend Yield	✓	✓
Dominant in Sector	✓	
Earnings Acceleration	✓	

Earnings Momentum	✓	
Earnings Upgrade Possibility	✓	
Empirical (Quant) Signals	✓	
Employee Churn	✓	
Ethical Management	✓	✓
Exposure to Favourable Demographics		✓
Exposure to Global Competition		✓
Exposure to Increasing Consumer Demand	✓	
Favourable Industry Dynamics	✓	
Favourable Macro Economic Factors	✓	
Favourable Management Initiatives	✓	
Female Representation in Leadership		✓
Financial Performance (dividends and capital growth)		✓
Financial Ratios (Set)		✓
Financial Stability		✓
Financially Healthy		✓
Free Cash Flow (FYO) (Valuation Consideration)	✓	
Future Company Profit Potential		✓
Gearing		
Governance	✓	✓
Granular Customer Base	✓	
Growth Options	✓	
Growth Potential	✓	✓
High Confidence in Accounting Quality and Accounting Regulations		✓
History	✓	✓
Improving Leadership	✓	
Industry Structure	✓	
Innovative	✓	✓
Invests in Australia		✓
Leader in New Space	✓	
Less Bureaucratic		✓
Level Playing Field		✓
Locally Listed		✓
Long Operating History	✓	
Long-Term Focused Management	✓	
Looking Outwards		✓
Low Cost Producer	✓	
Low Exposure to Poor Market	✓	
Safe	✓	✓
Management Not Too Complacent	✓	
Management Qualifications	✓	
Management Quality	✓	✓
Management Turnover	✓	
Manoeuvrable (Options)	✓	
Margin Pressure	✓	
Market Capitalisation	✓	✓

Market Competition	✓	✓
Market Penetration		✓
Market Potential		✓
Market Share	✓	
Market Structure	✓	
Meeting Guidance	✓	
Moral Leadership		✓
More customer interactions / broad customer base		✓
Network Effect	✓	
No Reliance on Government Revenue	✓	
Non-Discretionary Services (Staples)	✓	
Non Speculative		✓
Non-Commoditised Market	✓	
Non-Cyclical	✓	✓
Not Increasing Competition	✓	
Offshore Earnings Potential	✓	✓
Operating Ability in a Competitive Market		✓
Operating Leverage	✓	
Opportunities in New Markets	✓	
Organisational Culture	✓	✓
Out of Favour	✓	
Pays Dividend		✓
Personal Knowledge	✓	✓
Poor Industry (past) Growth	✓	
Positive Expectations Revisions	✓	
Positive Share Price Momentum	✓	
Positively Impacted by China Slowing	✓	
Potential For Expansion by Replication	✓	
Potential to Achieve Productivity Growth	✓	
Predictability	✓	
Predictability of Total Return	✓	
Press Coverage		✓
Price/Earnings Multiple	✓	✓
Pricing Power	✓	
Probability of Corporate Success		✓
Professional Leadership of Board		✓
Profit Margins	✓	
Proposition/Product Recall Risk	✓	
Protection from Currency Risk		✓
Proven Business Model	✓	
Quality of Financial Accounts		✓
Realistic Long-term Incentive Plan	✓	
Regulated Market (Oversight)	✓	
Regulatory Risk	✓	✓
Reliable Total Return		✓
Reputation	✓	

Reputation for Caring (about customers and shareholders)		✓
Reputation with Customers		✓
Resource Life		✓
Return on Assets (ROA)	✓	
Return on Equity (ROE)	✓	✓
Return on Invested Capital	✓	
Risk from Consumer Behaviour Change		✓
Risk from Technology	✓	
Risk of Industry Structure Change	✓	
Safe	✓	✓
Sector	✓	✓
Security of Demand	✓	
Self-Developed IP	✓	
Share Price Trend		✓
Share Price Upside	✓	✓
Share Register	✓	
Shareholder Benefits		✓
Social/Environmental Risks	✓	
Socially Responsible Sector		✓
Solid	✓	✓
Sovereign Risk	✓	
Stability of Business Model	✓	
Stable Income for Investors	✓	
Strategy		✓
Sustainability of Earnings	✓	
Sustainable Free Cash Flow (Valuation consideration)	✓	
Takeover Appeal	✓	
Tapped into a Megatrend	✓	
Top Quality Chairman		✓
Total Investor Return		✓
Translation of Earnings to Cash Flow	✓	
Transparent Disclosure	✓	
Trustworthy	✓	✓
Uncorrelated with Portfolio (Portfolio Construction)	✓	
Under Earning	✓	
Underperformed (Share Price)	✓	
Undervalued / Cheap	✓	✓
Undiscovered	✓	
Utilization of Assets		✓
Valuation Sensitivity to Financial Leverage	✓	
Valuation Sensitivity to Macro Drivers	✓	
Valuation Sensitivity to Operating Leverage	✓	
Variability of Earnings	✓	
Visibility of Industry Prospects	✓	